

1 of 51

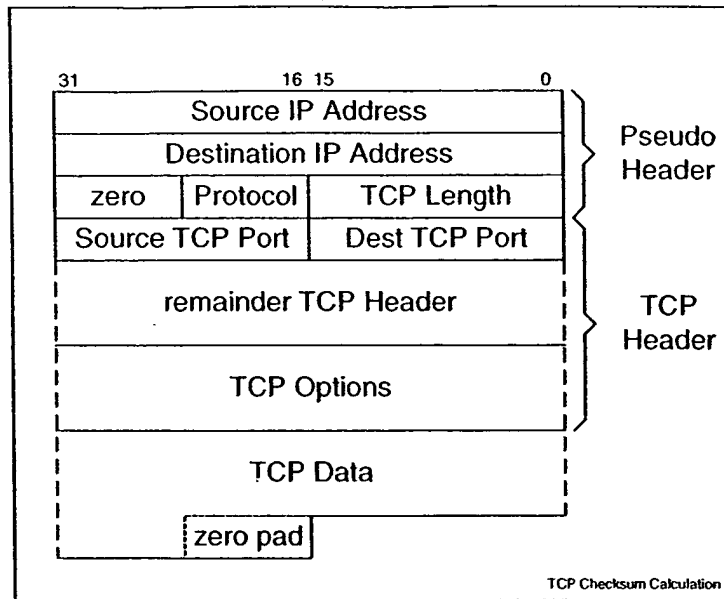


Figure 1A (PRIOR ART)

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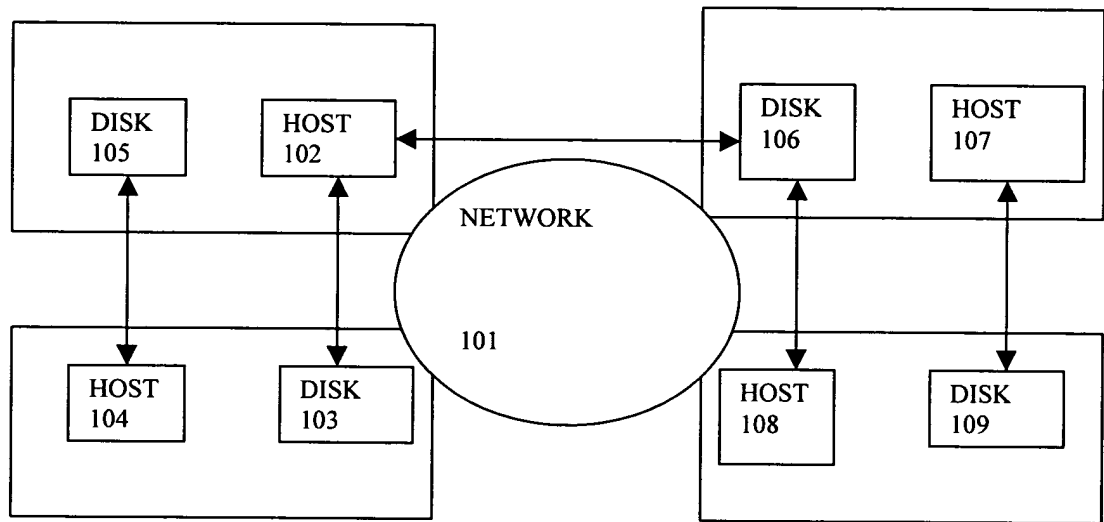


FIGURE 2A

100

38751

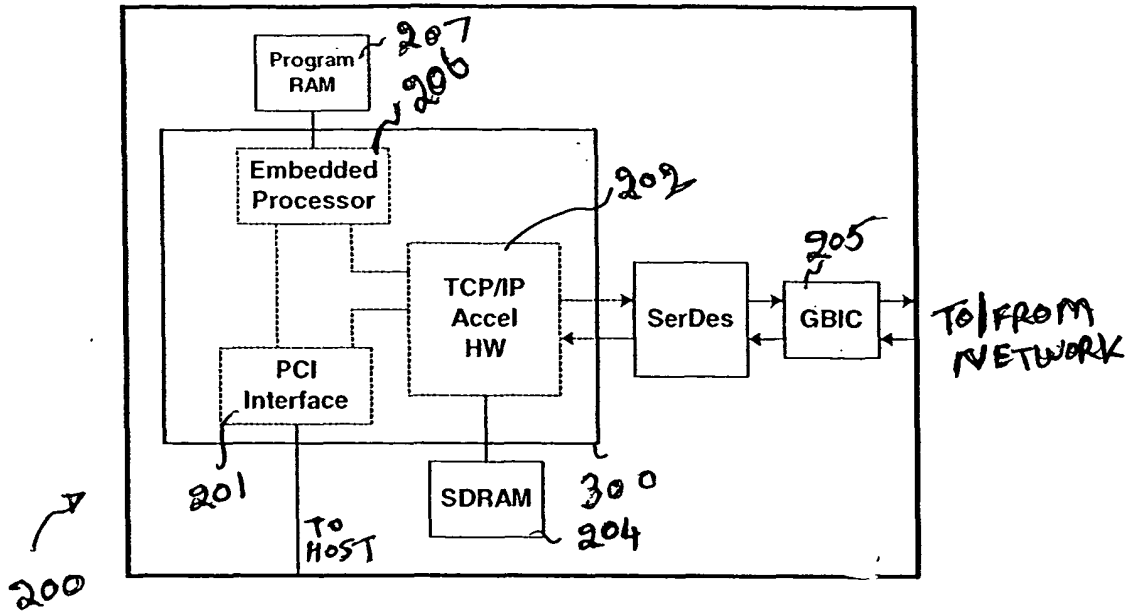


Figure 2B

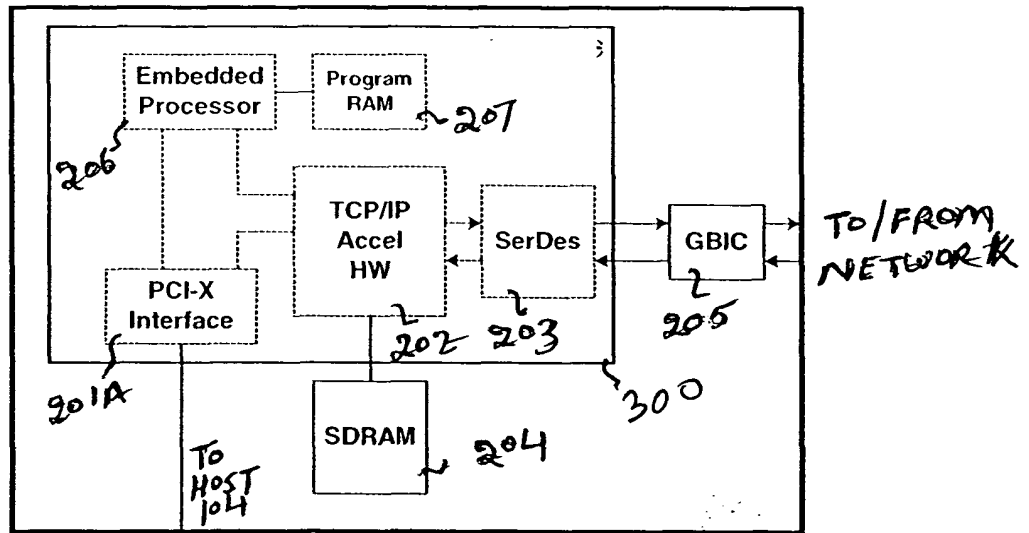


Figure 2C

200A

4851

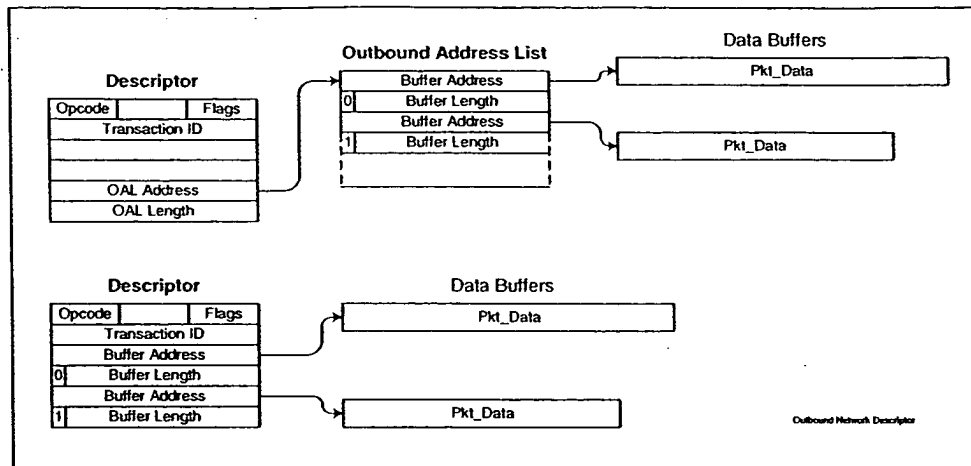


Figure 3A-1 Network IOCB Example

To Host 104

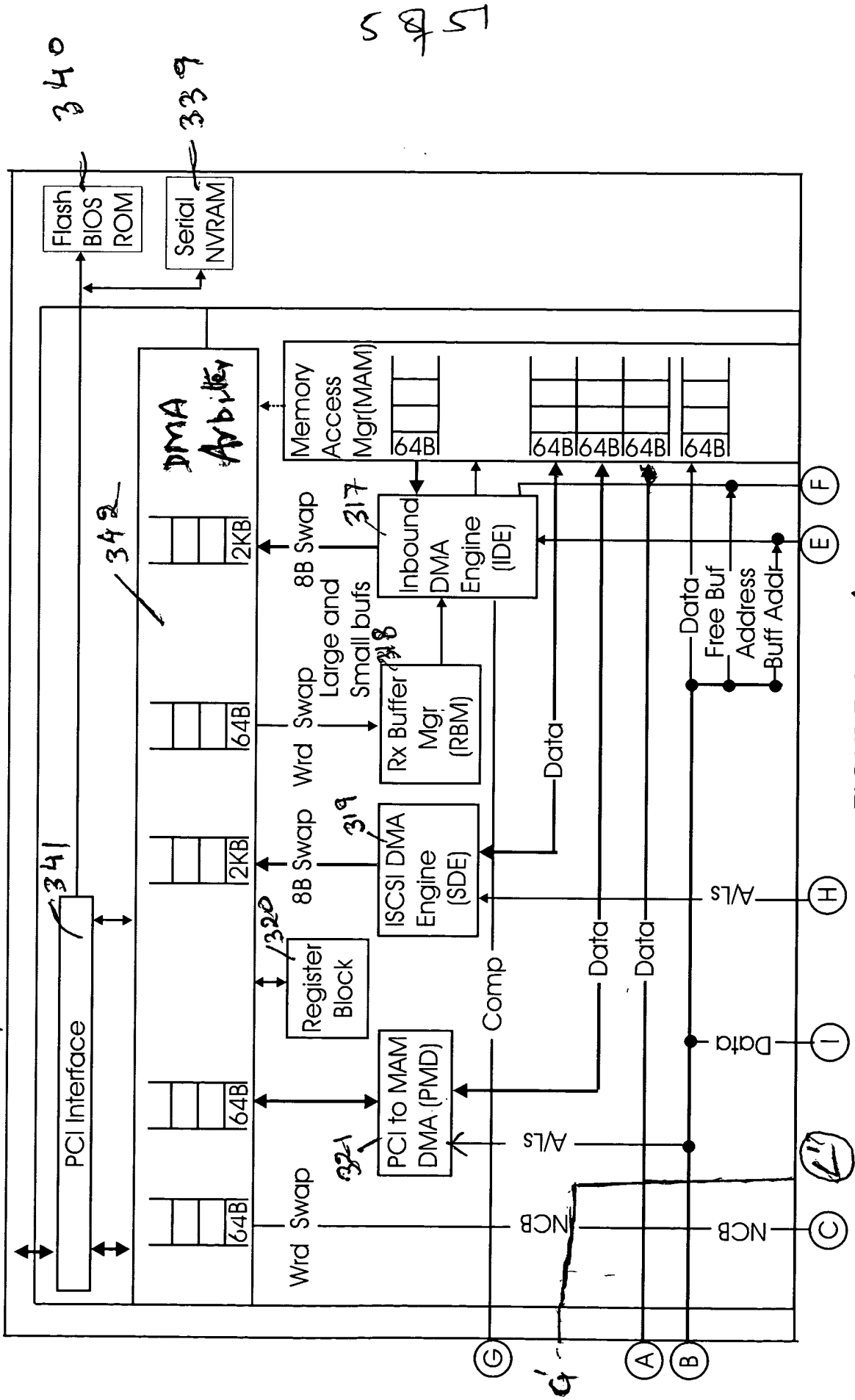


FIGURE 3A1-1

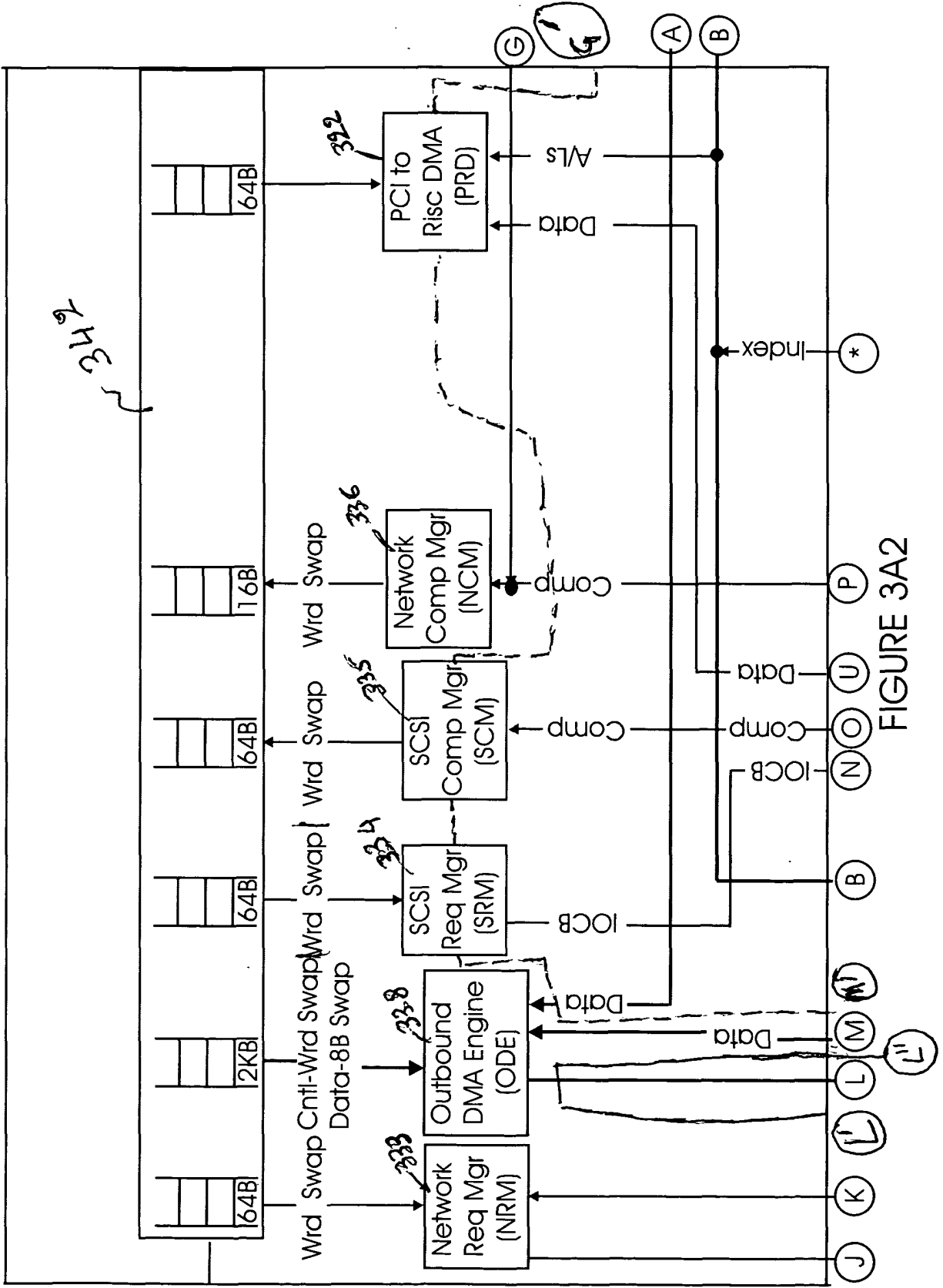


FIGURE 3A2

574

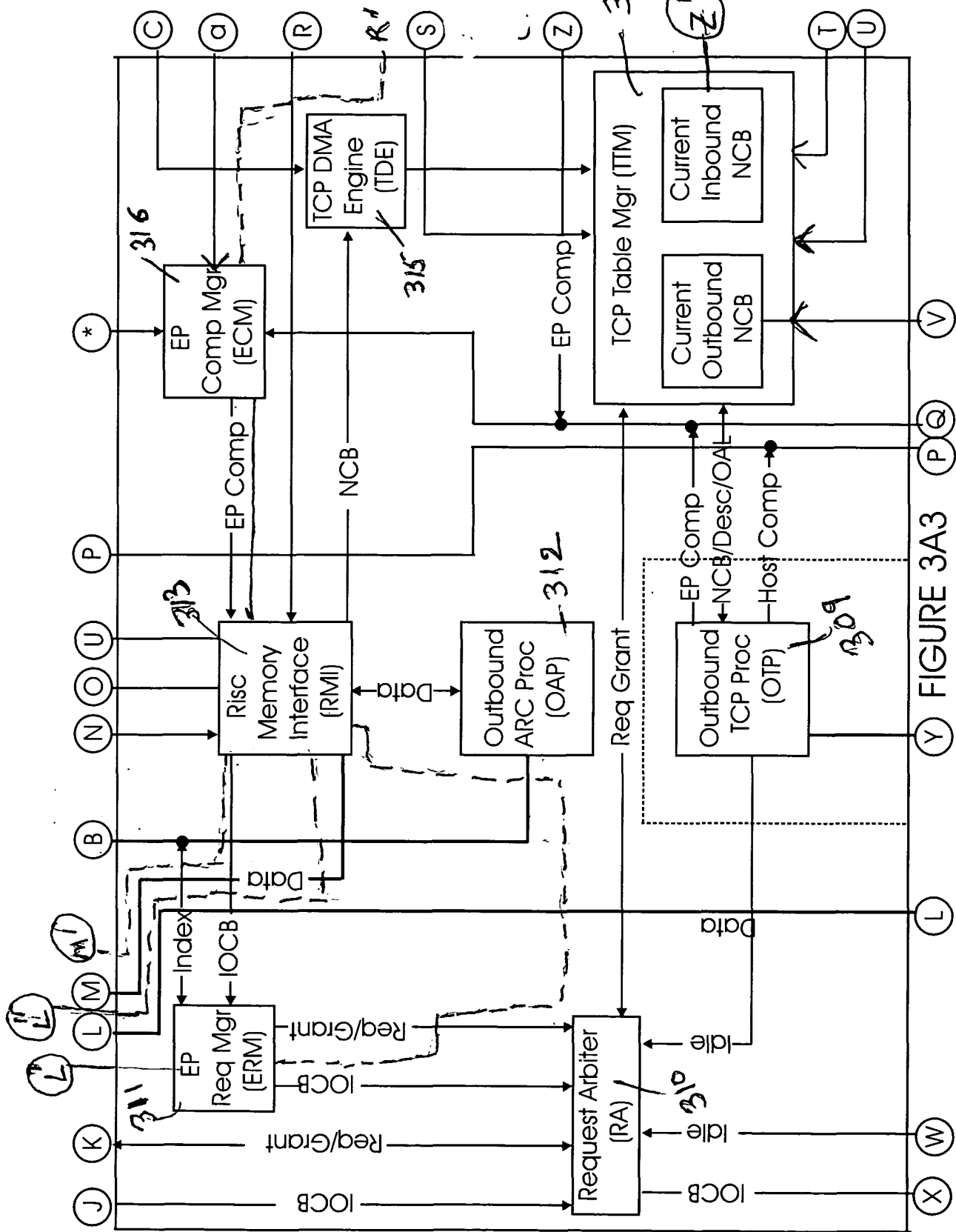


FIGURE 3A3

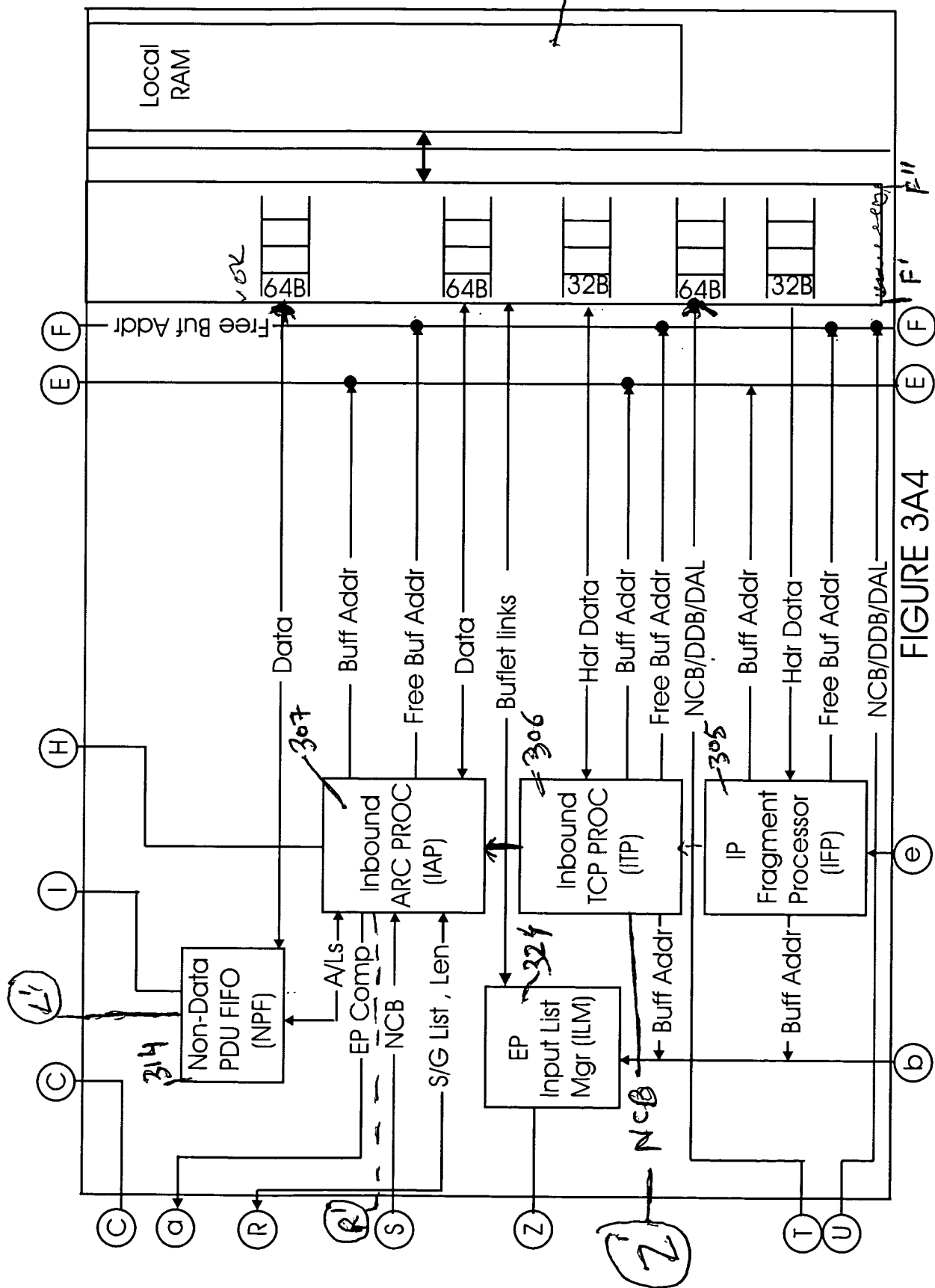


FIGURE 3A4

568



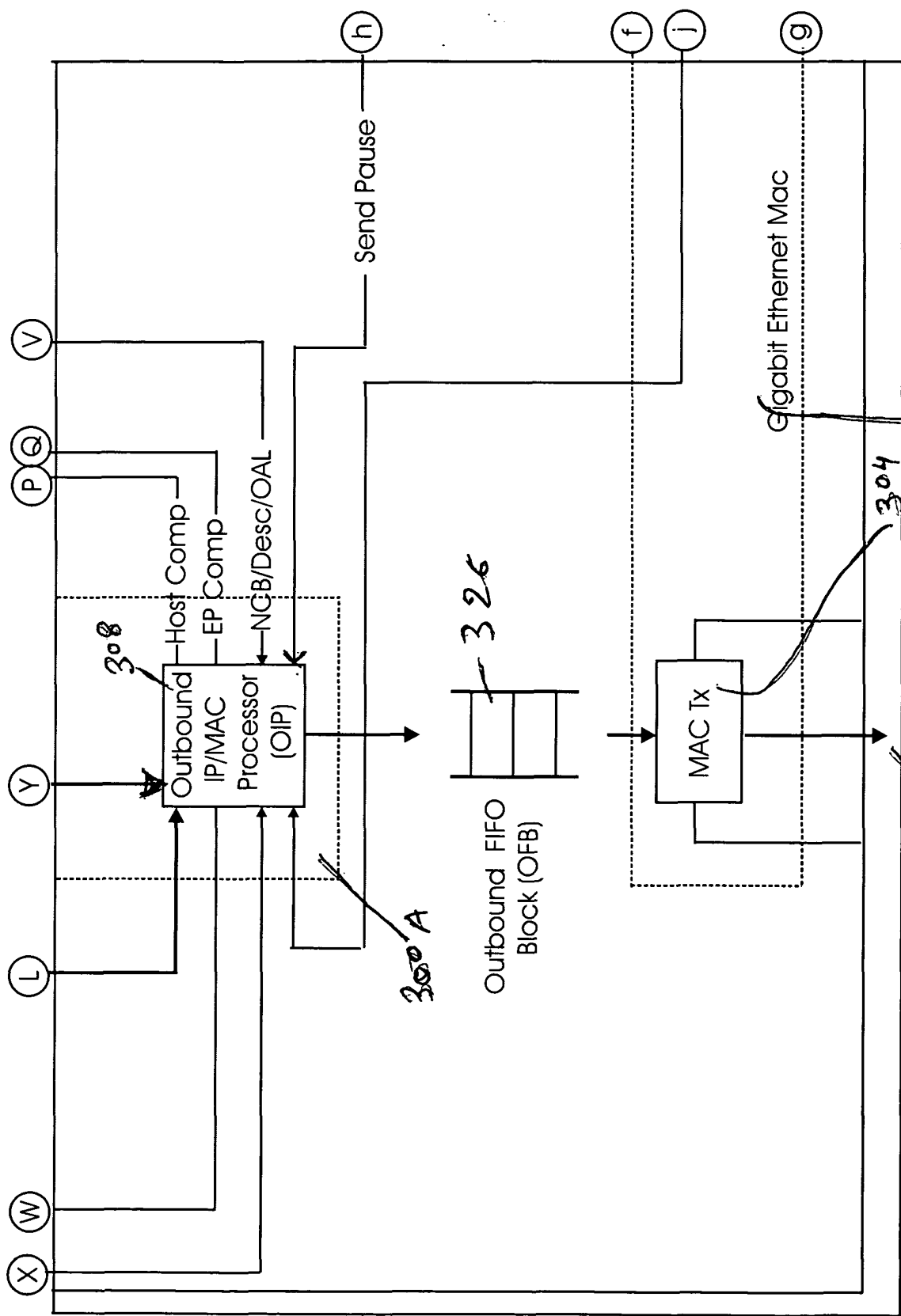


FIGURE 3A5

303 B

304 A

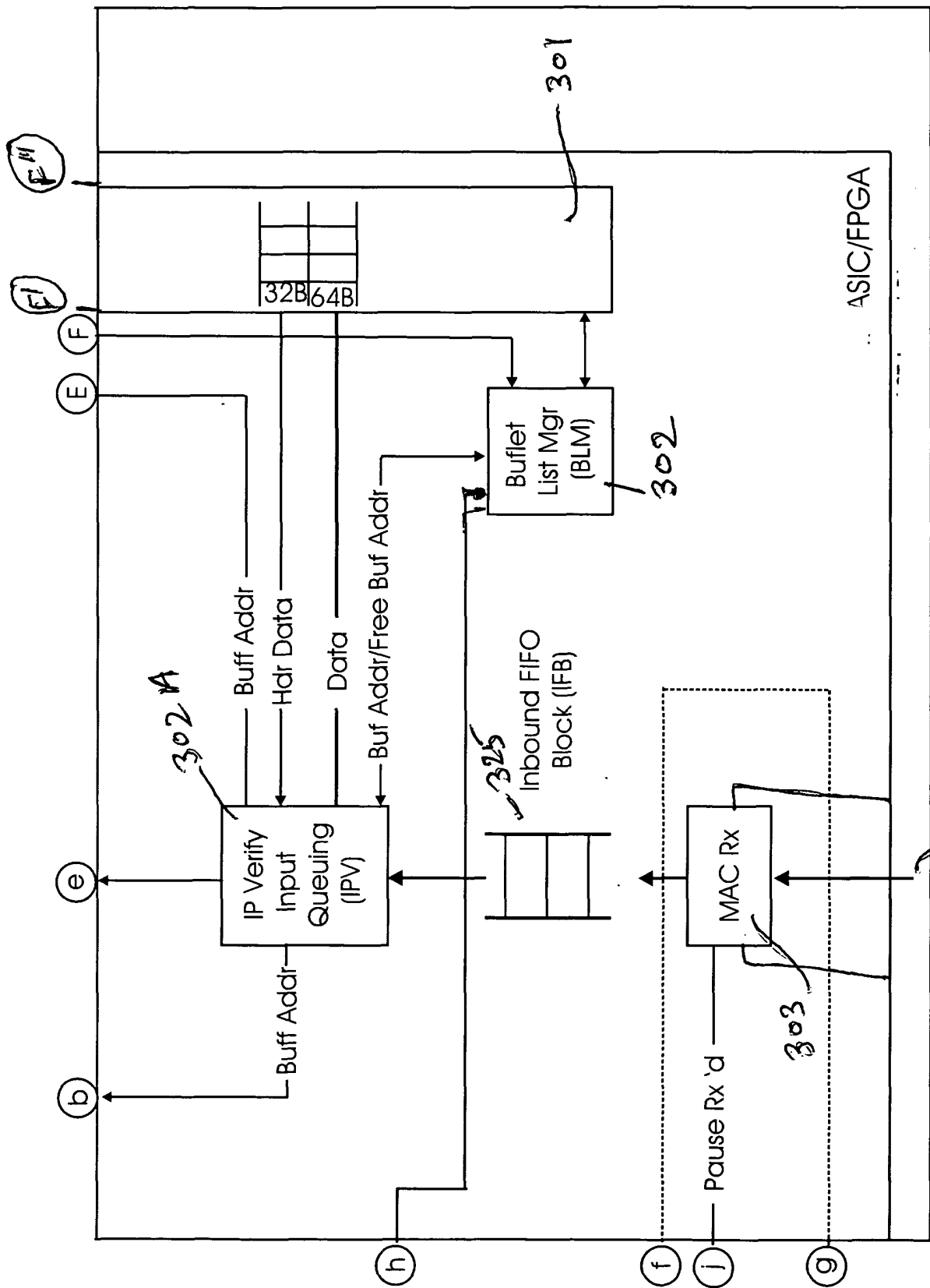


FIGURE 3A6

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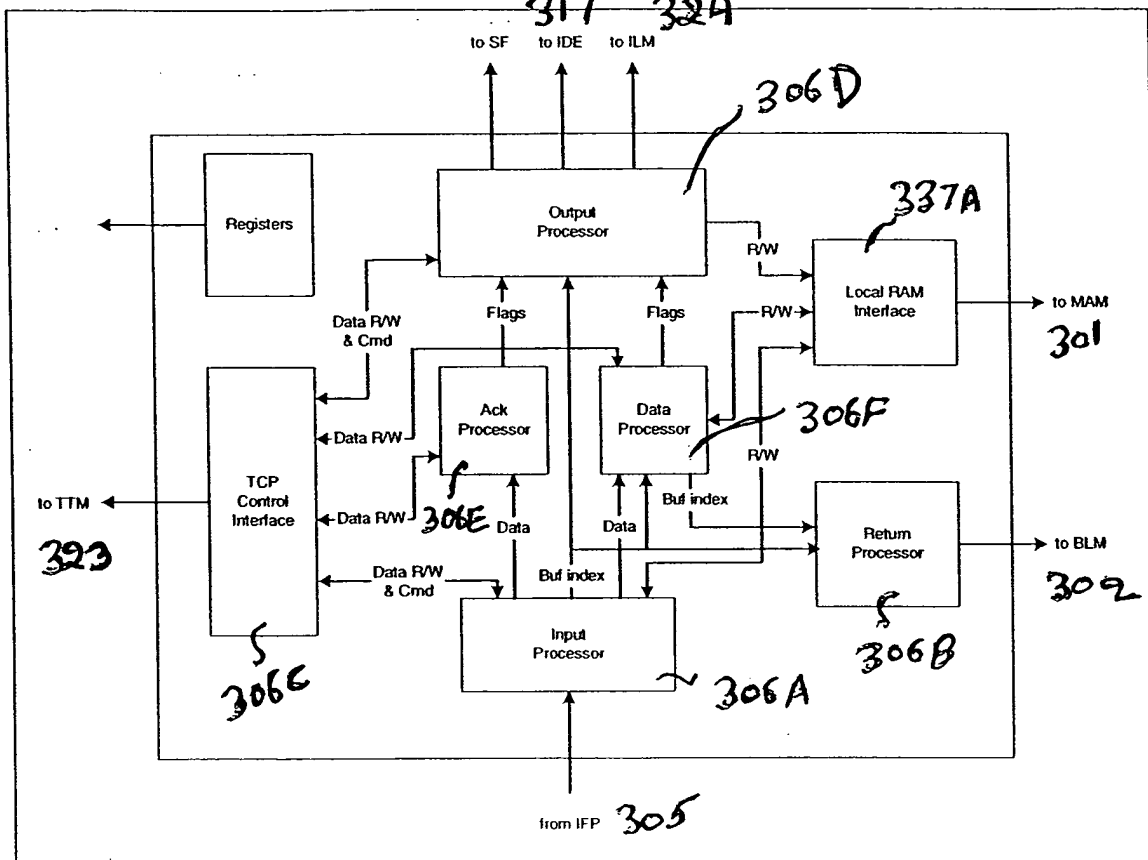


Figure 3B -

12 8 51

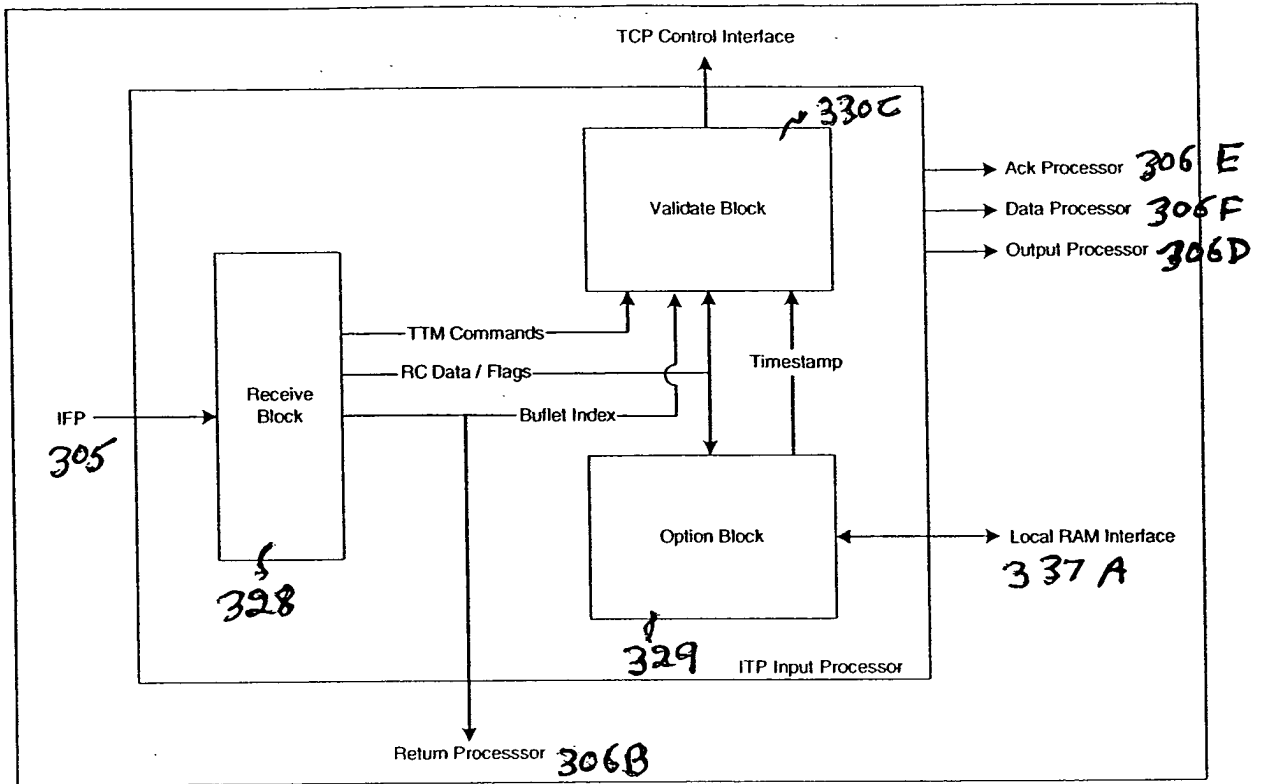


Figure 3C - ITP Input Processor

306A

13 8 51

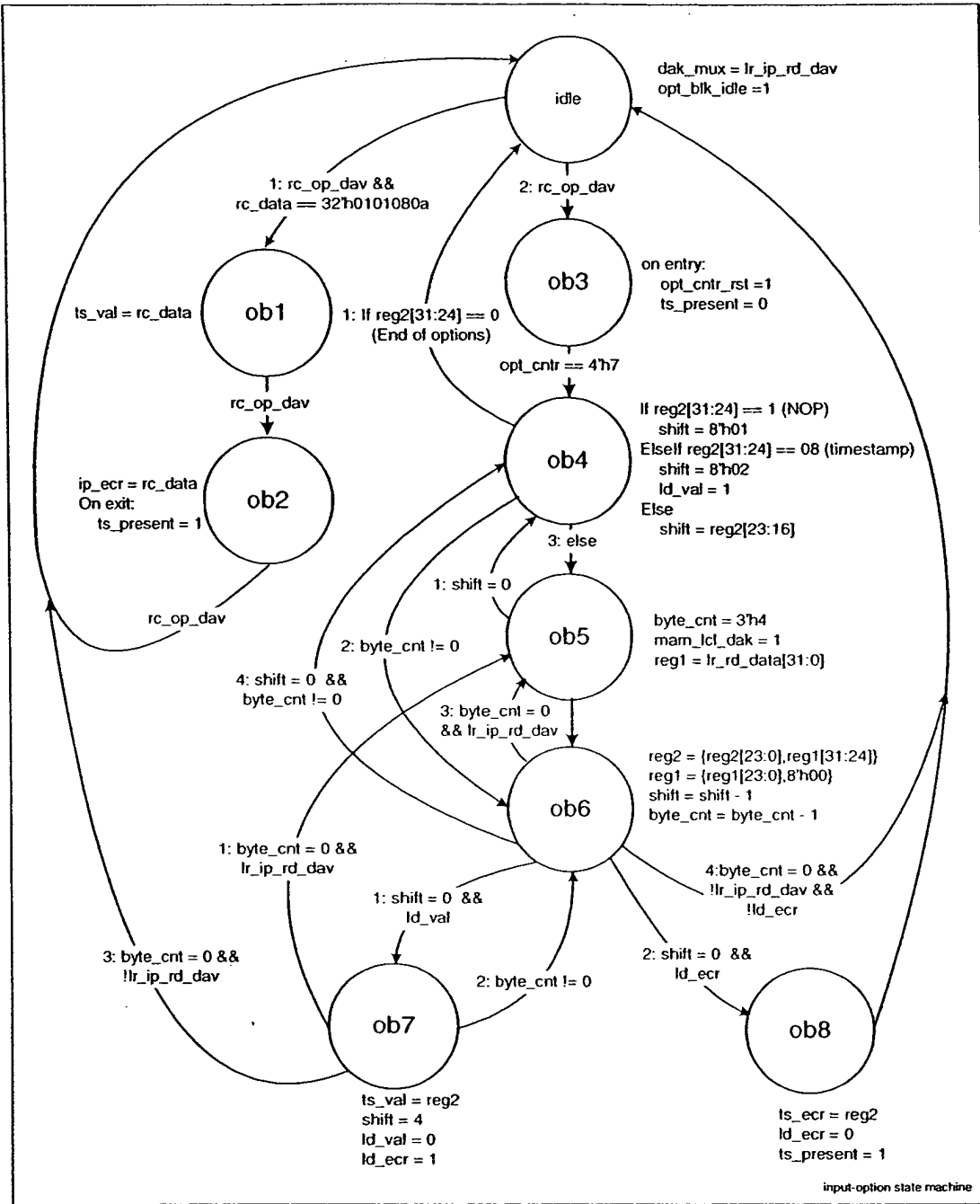


Figure 3C1 Input Processor Option Block State Machine

14 8 51

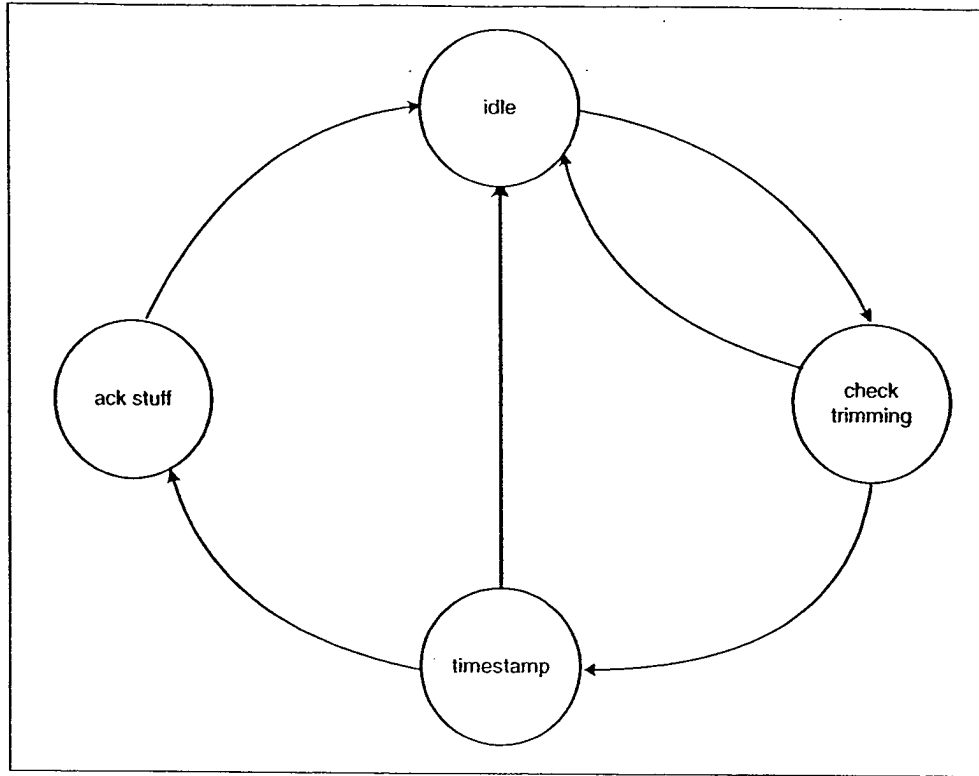


Figure 3C2: Validation State Machine \_

15 8/51

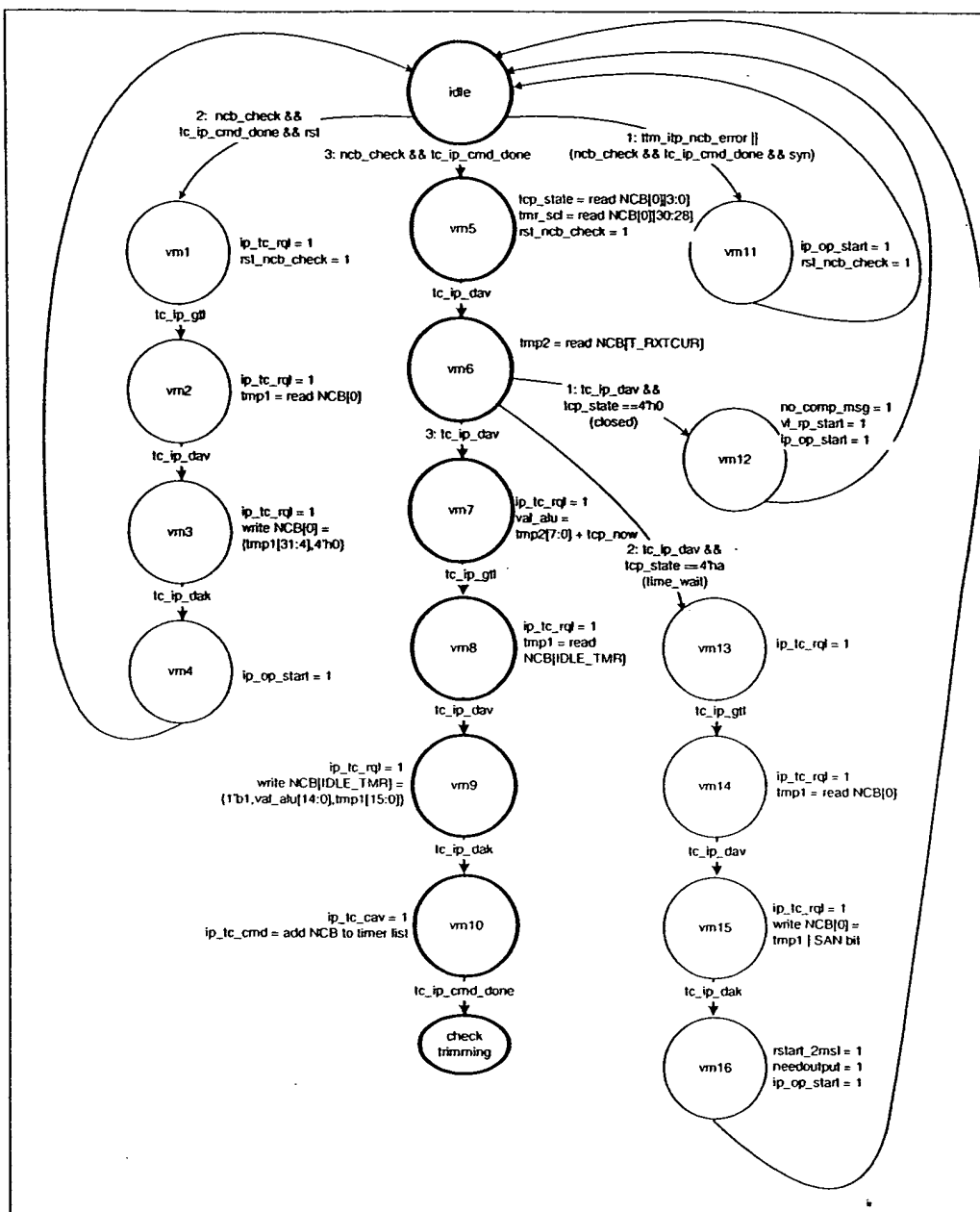


Figure 3C3: Validation State Machine for Reset, SYN or Invalid State

16 8751

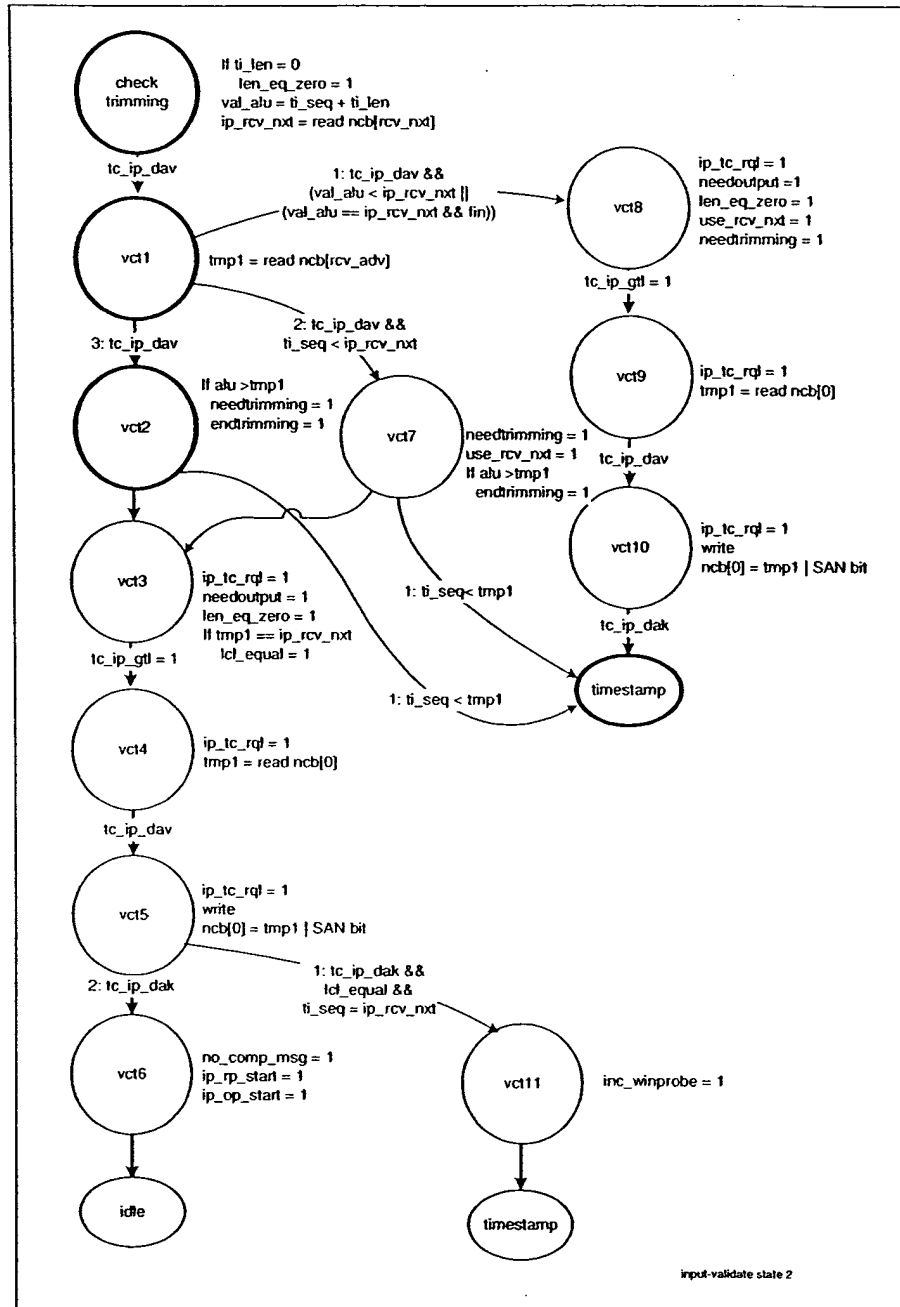


Figure 3C4: Validation State Machine for Trimming



17 851

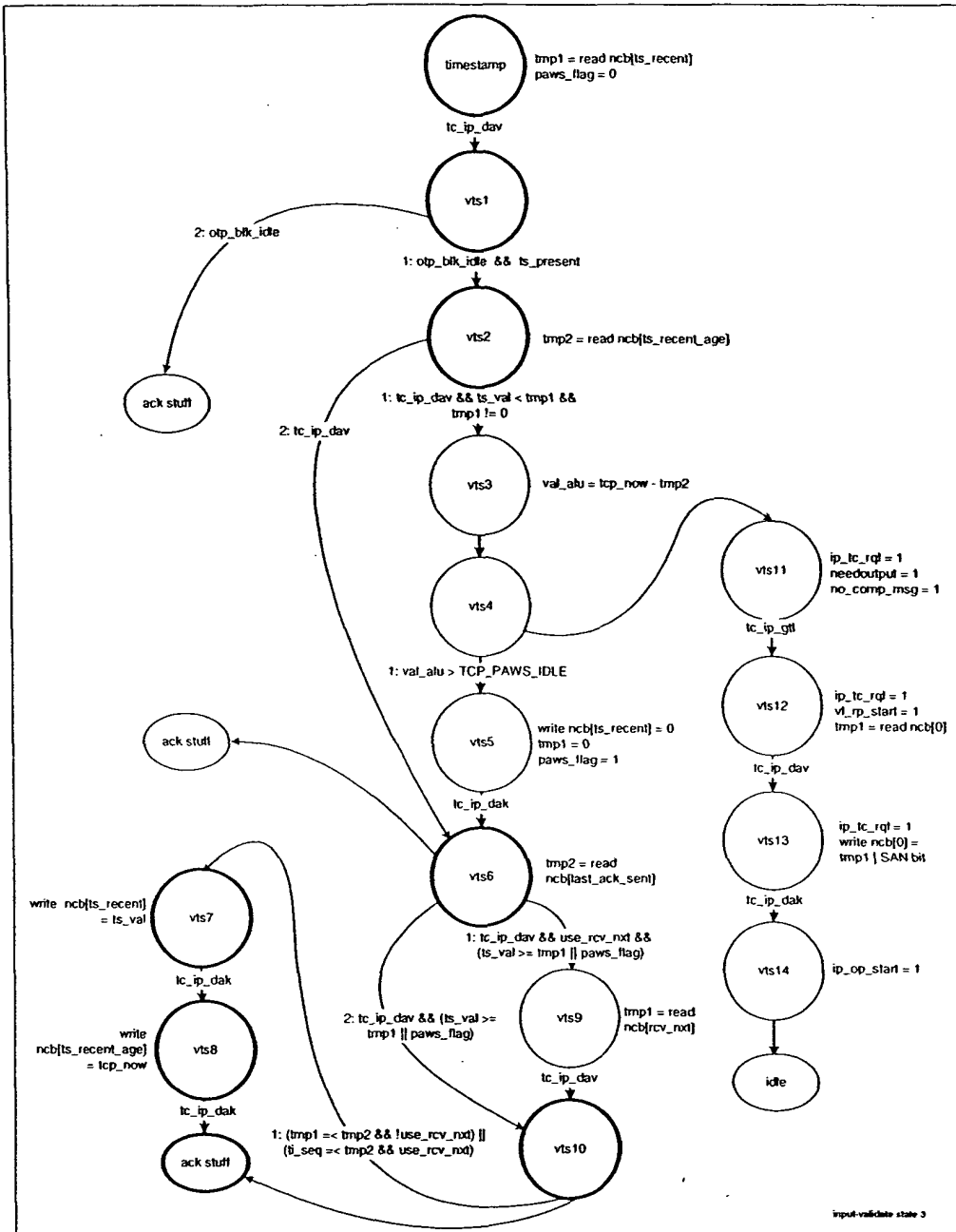


Figure 3C5: Validation State machine for Timestamp functionality

18 9 51

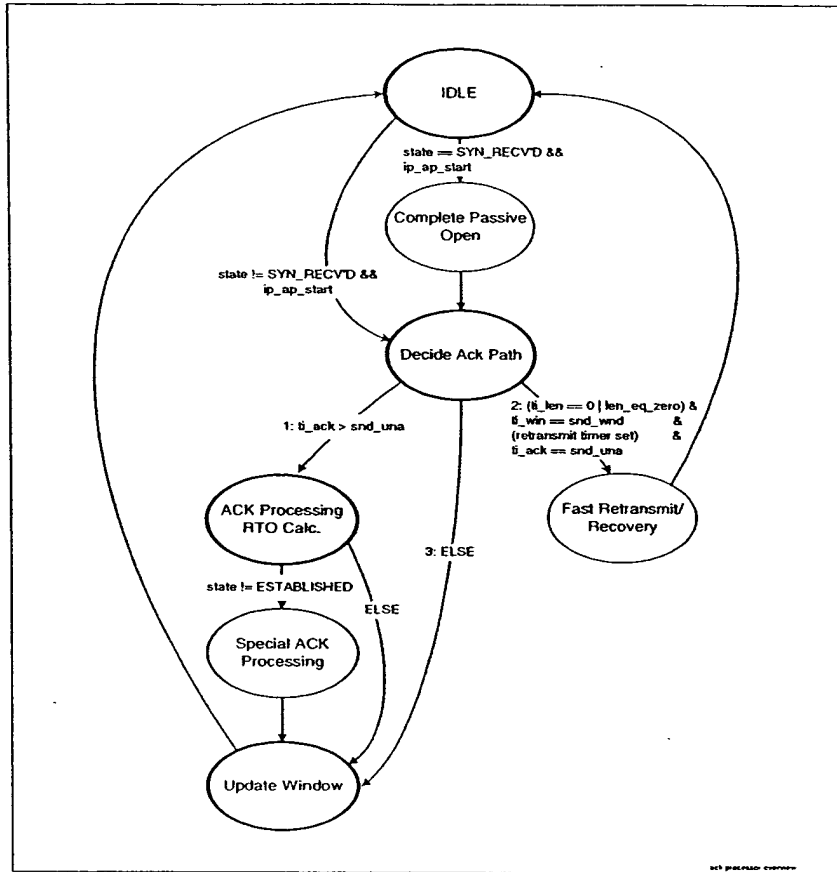


Figure3C6- ACK Processor

19 8 51

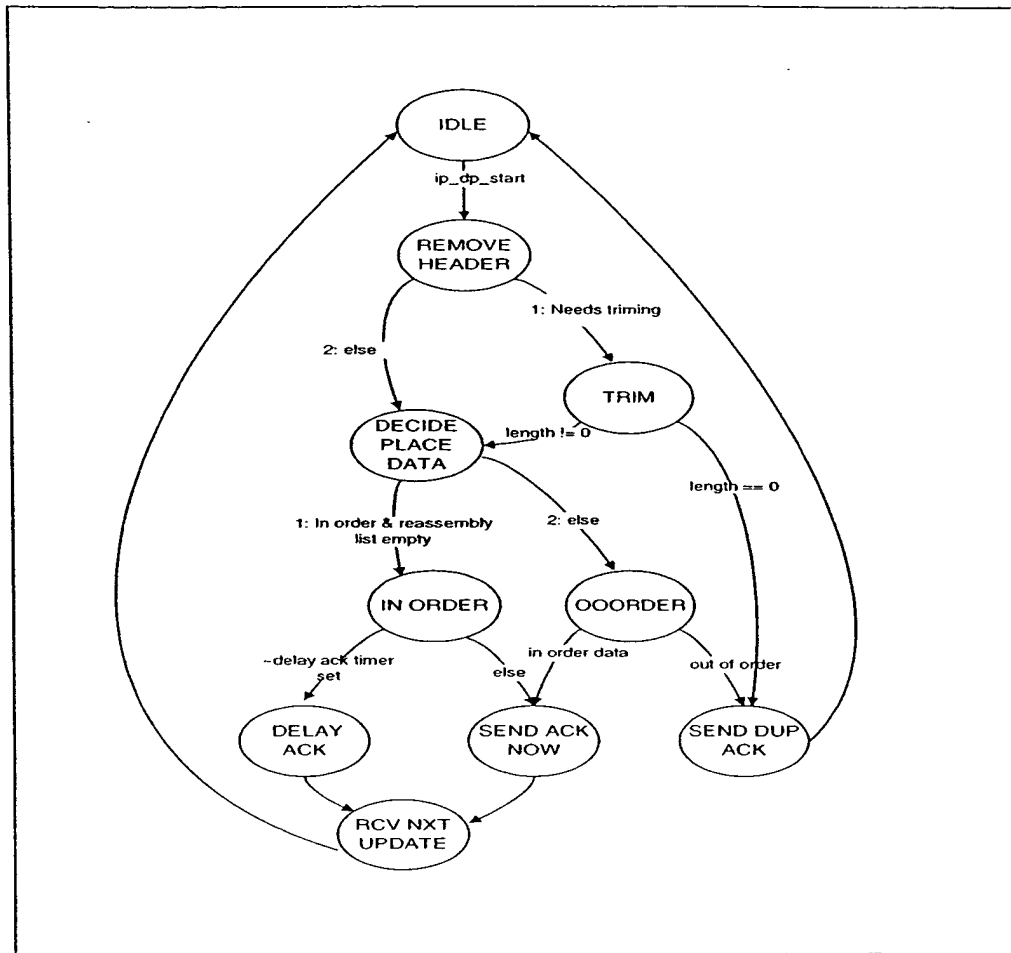


Figure 3C7 Data Processing State Machine

20 8 51

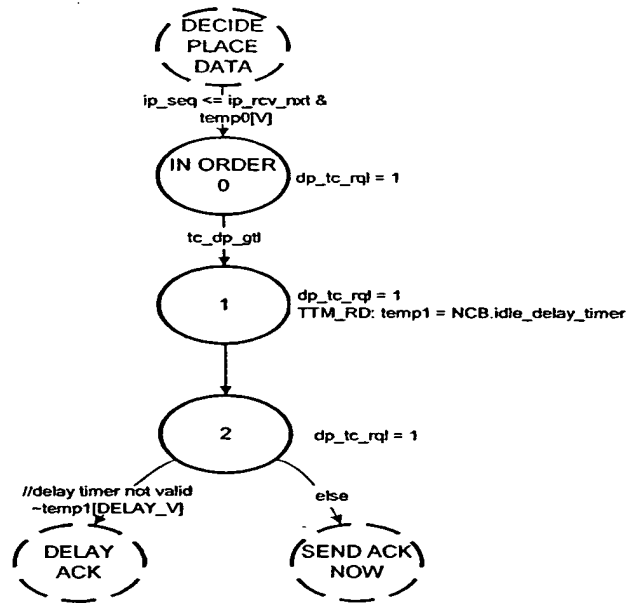


Figure 3C8 – Data Process Inorder

21851

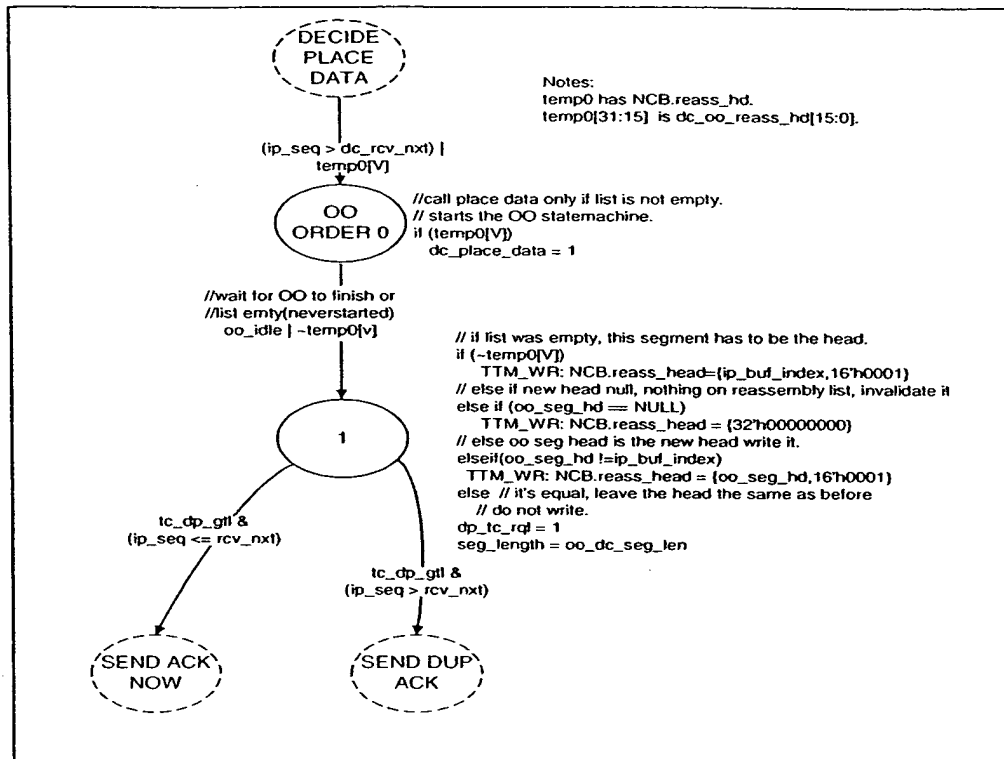


Figure 3C9 – Data Process Out of Order

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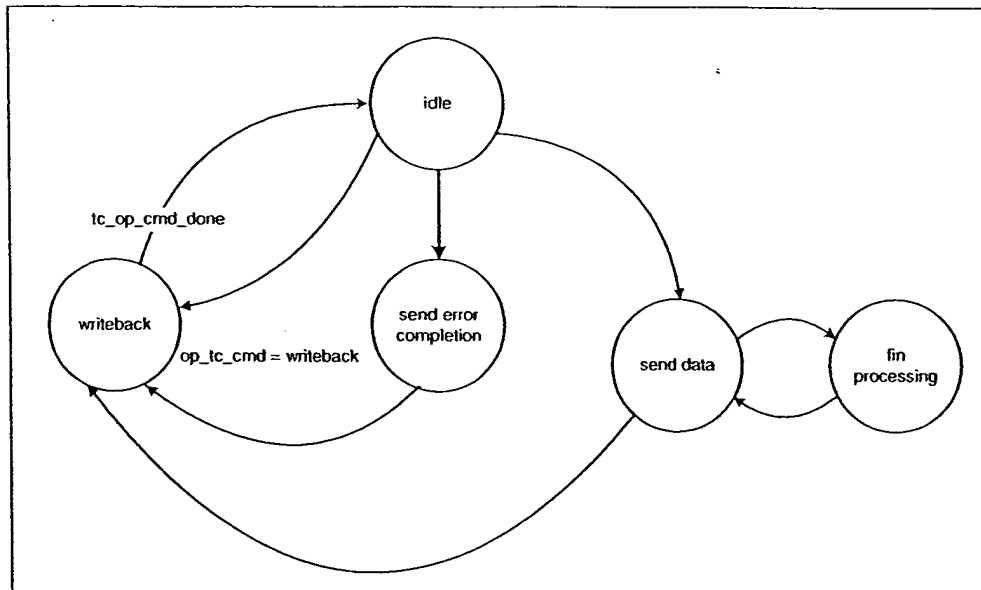


Figure 3C10 - ITP Output Processor

23 8 51

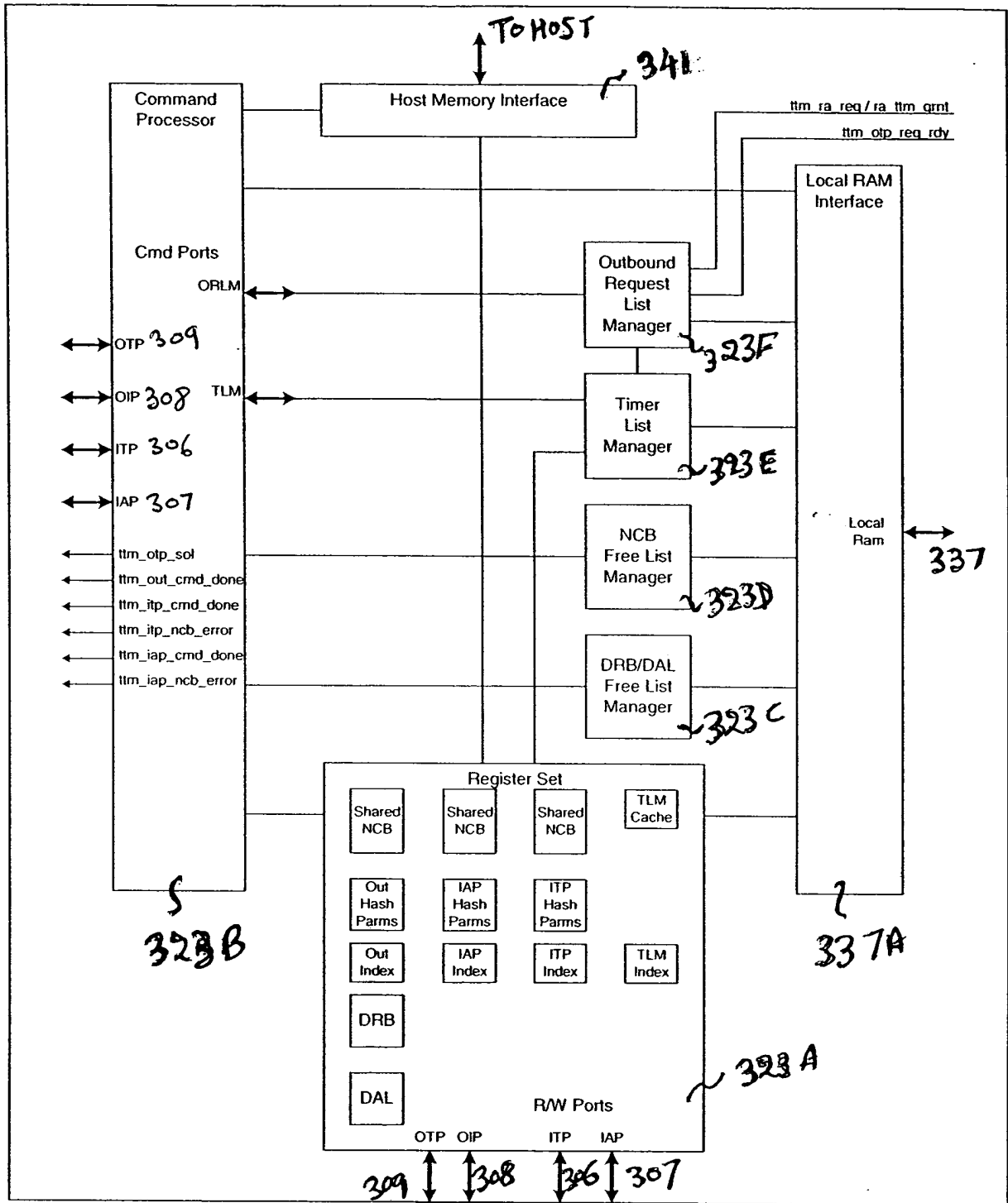


Figure 3D 1

323

```

graph TD
    A((A)) --> MAIN_IDLE[MAIN_IDLE  
set en_add]
    MAIN_IDLE --> timer_tick{timer_tick}
    timer_tick -- N --> A
    timer_tick -- Y --> B((B))
    B --> GOT_TICK[GOT_TICK]
    GOT_TICK --> curr0{curr[0]==1'b0}
    curr0 -- Y --> A
    curr0 -- N --> LOAD_TLC[LOAD_TLC  
set en_add]
    LOAD_TLC --> cp_tlm_cmd_done{cp_tlm_cmd_done}
    cp_tlm_cmd_done -- N --> A
    cp_tlm_cmd_done -- Y --> curr_tail{curr==tail}
    curr_tail -- Y --> GET_NXT_LNK[GET_NXT_LNK]
    GET_NXT_LNK --> lri_tlm_dv{lri_tlm_dv}
    lri_tlm_dv -- N --> A
    lri_tlm_dv -- Y --> GET_LOCK[GET_LOCK]
    GET_LOCK --> rs_tlm_gtl{rs_tlm_gtl}
    rs_tlm_gtl -- N --> A
    rs_tlm_gtl -- Y --> C((C))

    C((C)) --> RD_STAT[RD_STAT]
    RD_STAT --> CHK_FLUSH[CHK_FLUSH]
    CHK_FLUSH --> ncb_stat{ncb_stat[3:0]==4'b1111  
shed?}
    ncb_stat -- Y --> D1((D))
    ncb_stat -- N --> RD_T1[RD_T1]
    RD_T1 --> RD_T2[RD_T2]
    RD_T2 --> CHK_POP[CHK_POP]
    CHK_POP --> timer_set{ret_prst.retr_f,  
ret_prst.prst_f, idle,  
e_dlack.idle_f, idle_dlack.dlack_f  
== 4'b0000}
    timer_set -- Y --> D1
    timer_set -- N --> wr_ncb_flags{wr_ncb_flags}
    wr_ncb_flags -- N --> CLR_IN_USE[CLR_IN_USE  
set tlm_rs_rq=1'b0]
    CLR_IN_USE --> B((B))
    wr_ncb_flags -- Y --> WR_WD0[WR_WD0]
    WR_WD0 --> WR_TIMER1[WR_TIMER1]
    WR_TIMER1 --> WR_TIMER2[WR_TIMER2  
set tlm_rs_rq=1'b0]
    WR_TIMER2 --> add_to_orl{add_to_orl}
    add_to_orl -- Y --> ADD_ORL[ADD_ORL  
set en_add]
    ADD_ORL --> cp_tlm_cmd_done2{cp_tlm_cmd_done}
    cp_tlm_cmd_done2 -- N --> ADD_ORL
    cp_tlm_cmd_done2 -- Y --> WR_BACK[WR_BACK  
set en_add]
    WR_BACK --> cp_tlm_cmd_done3{cp_tlm_cmd_done}
    cp_tlm_cmd_done3 -- N --> B
    cp_tlm_cmd_done3 -- Y --> A

```

### Figure 3D1 Timer List Manager State Machine



25 8 51

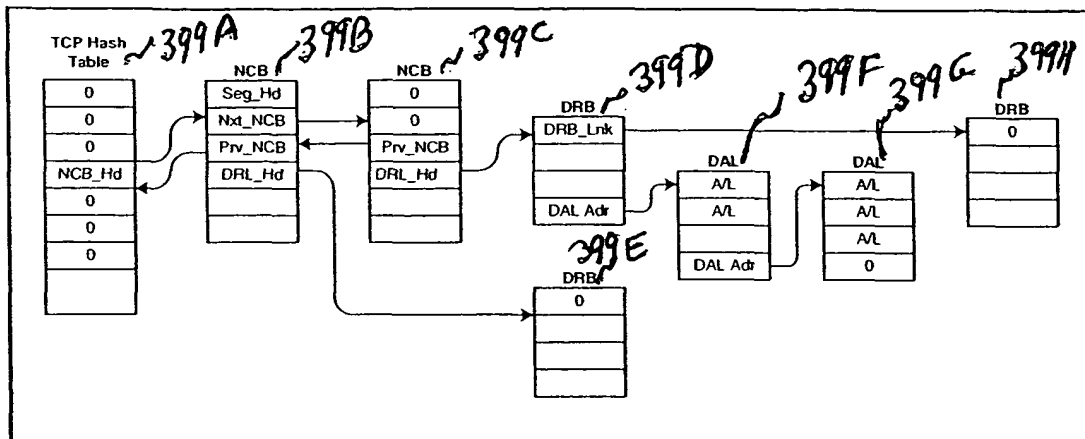


Figure 3E

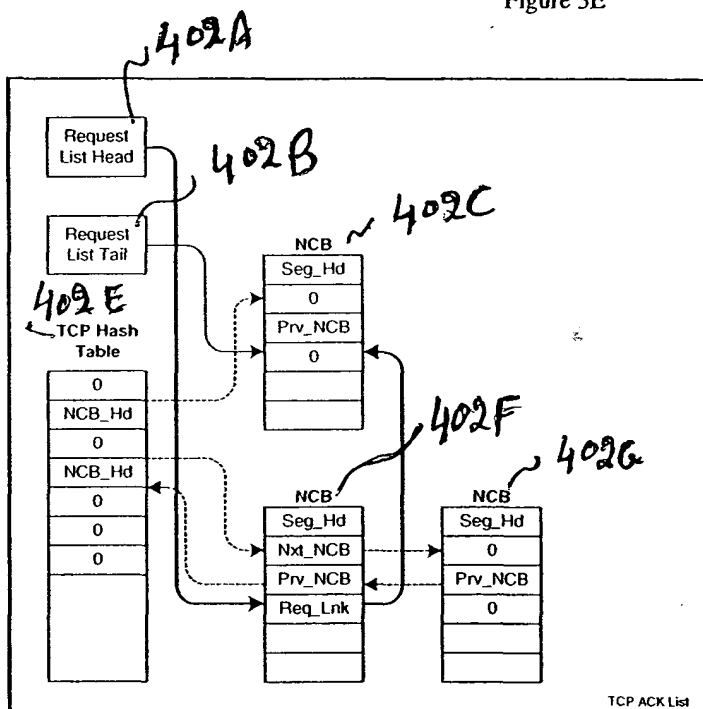


Figure 3F

26 8751

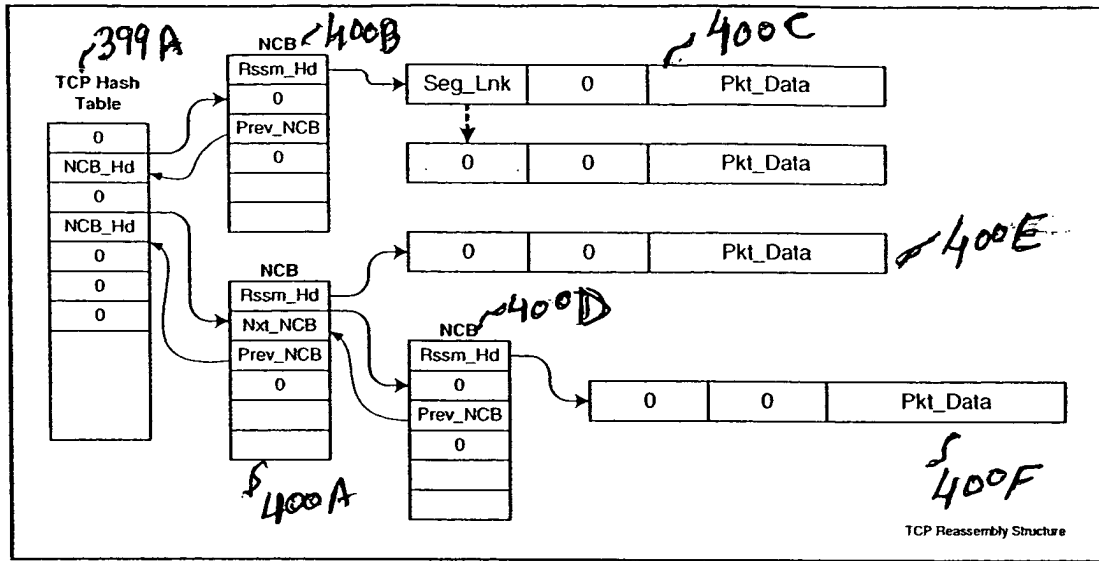


Figure 3G

400

27 8 51

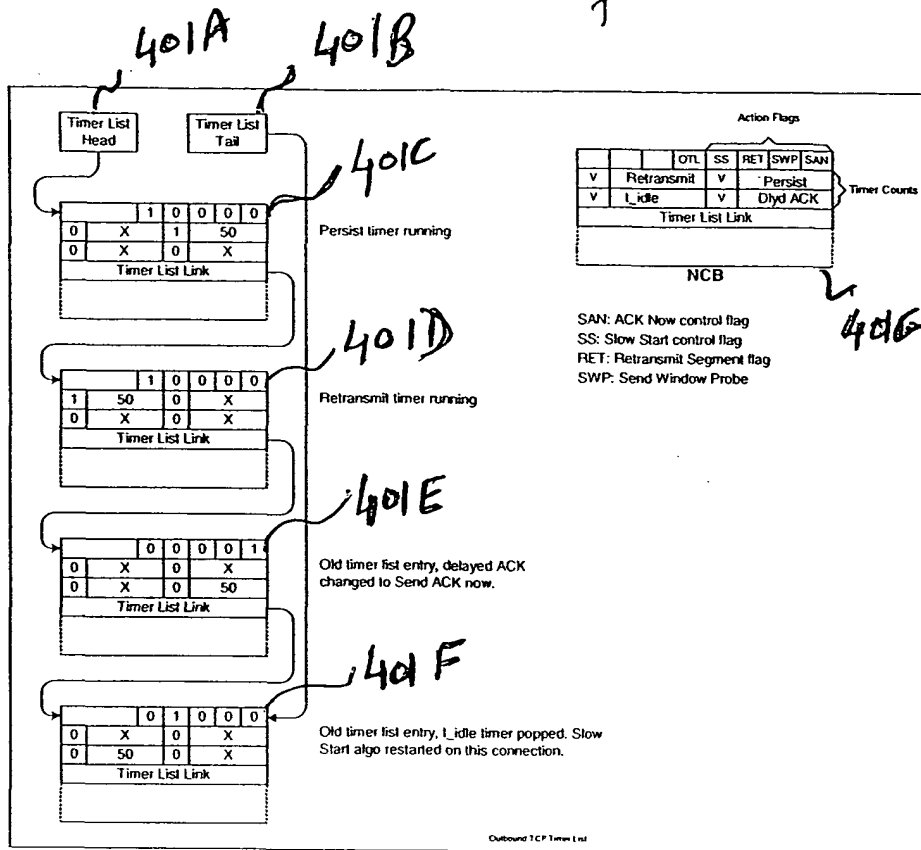


Figure 3H

401

28 8 51

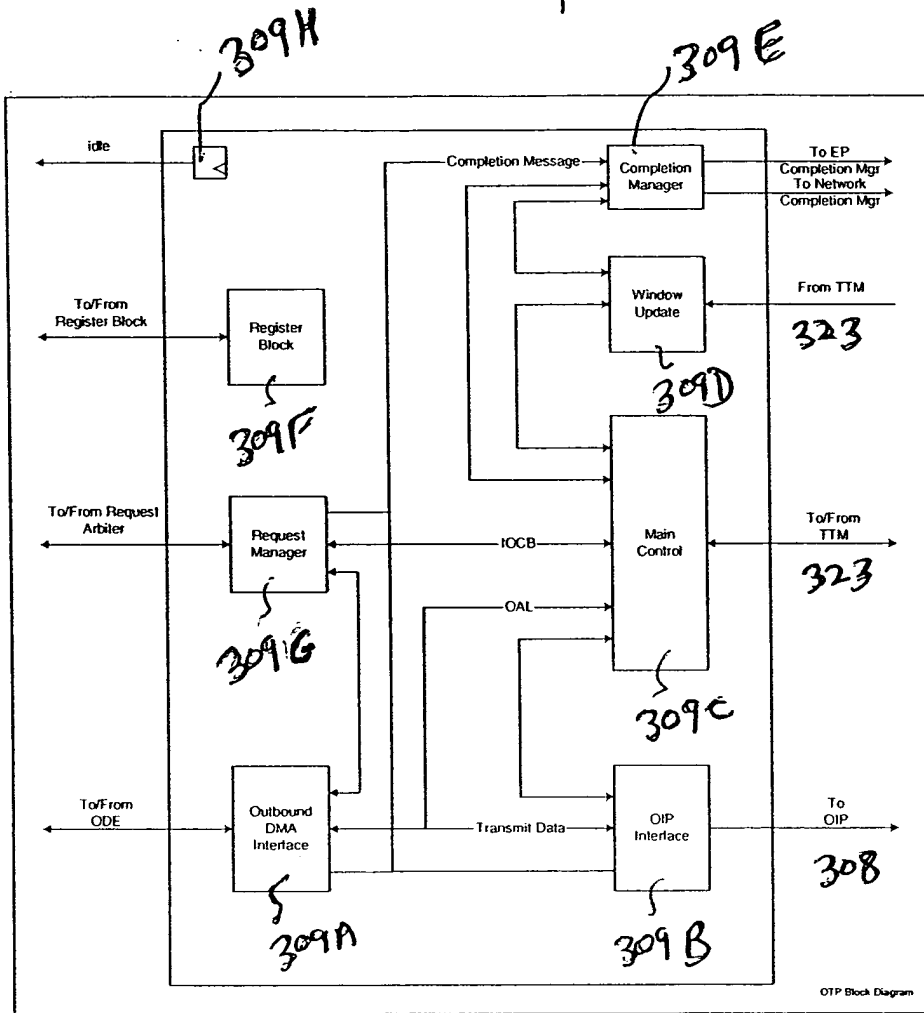


Figure 31

309

29 8 51

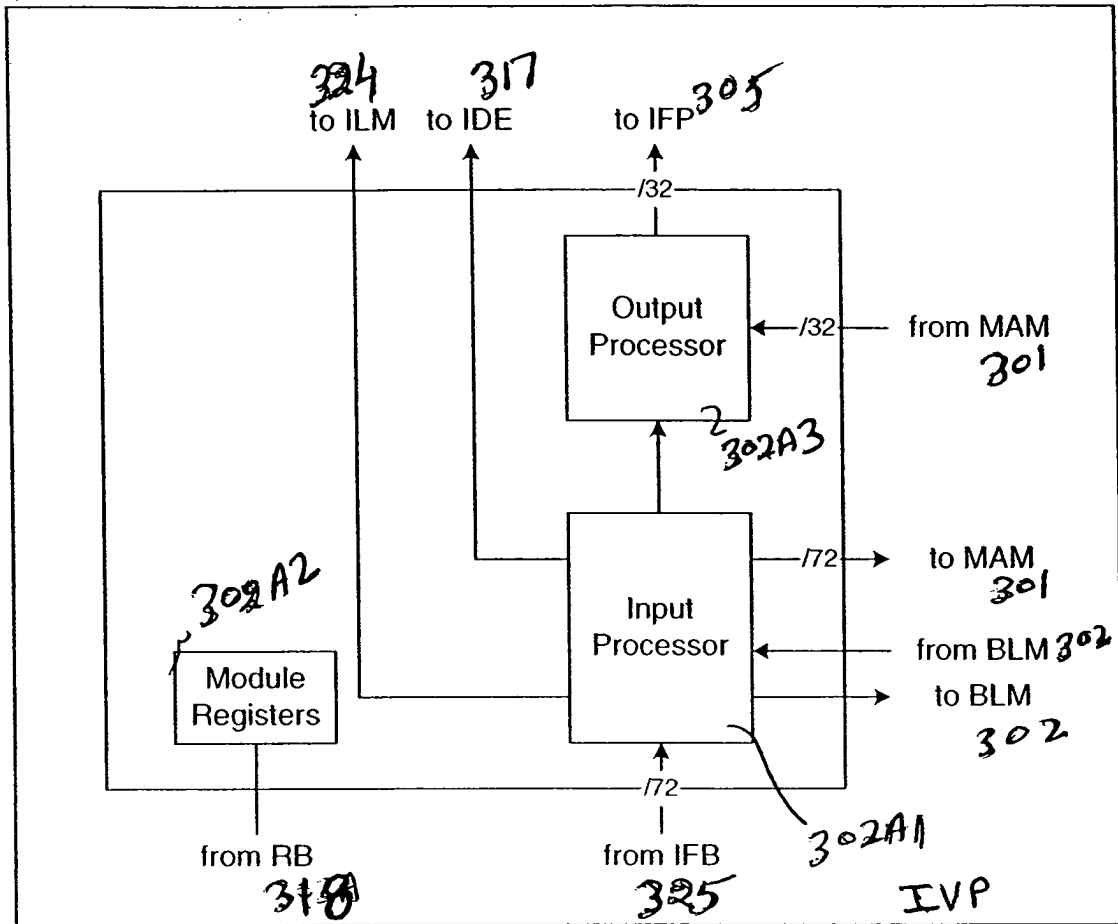


Figure 3J1

302A

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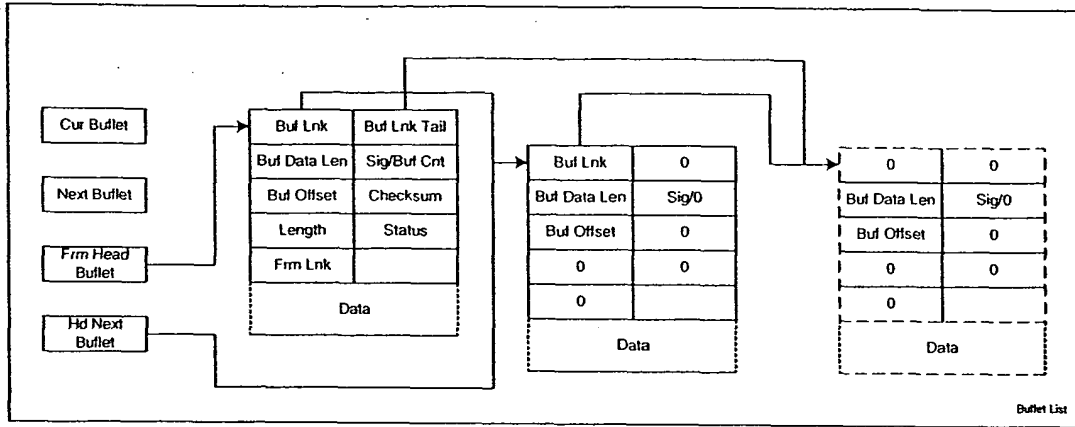


Figure 3J1 Buflet List Structure

31 8751

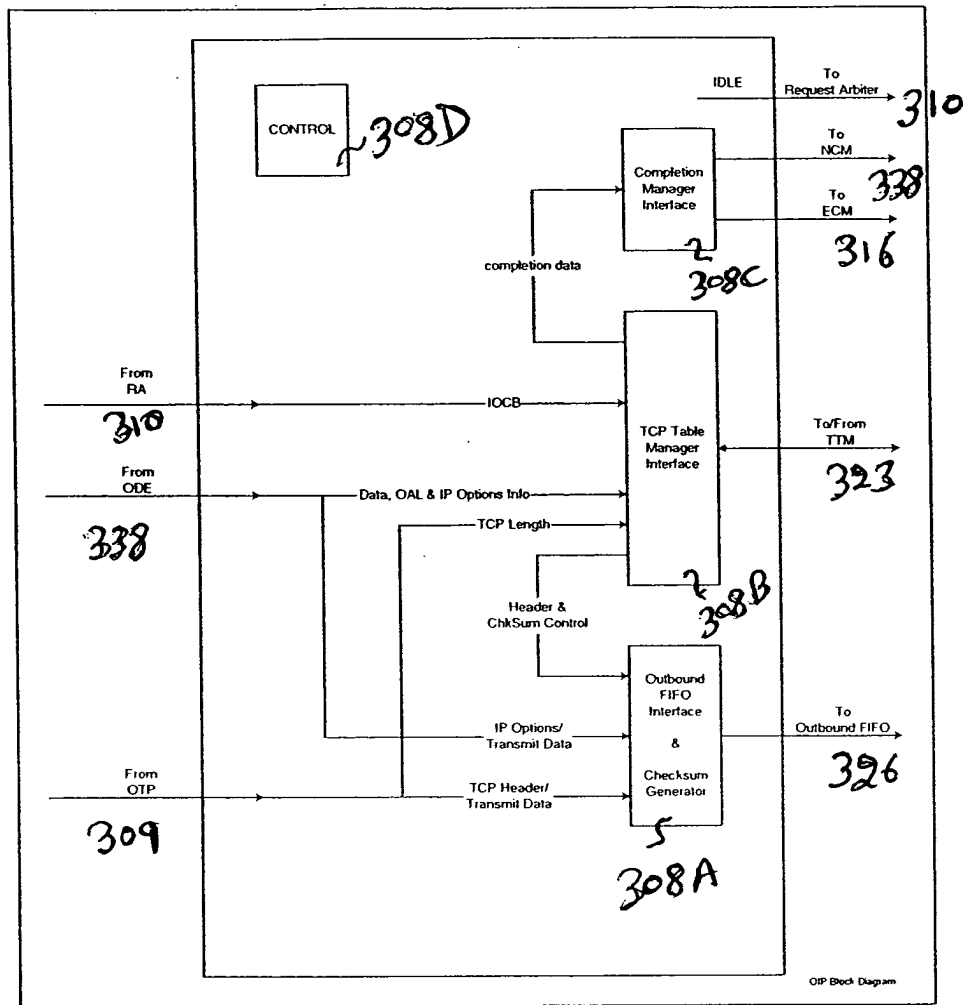


Figure 3K

308

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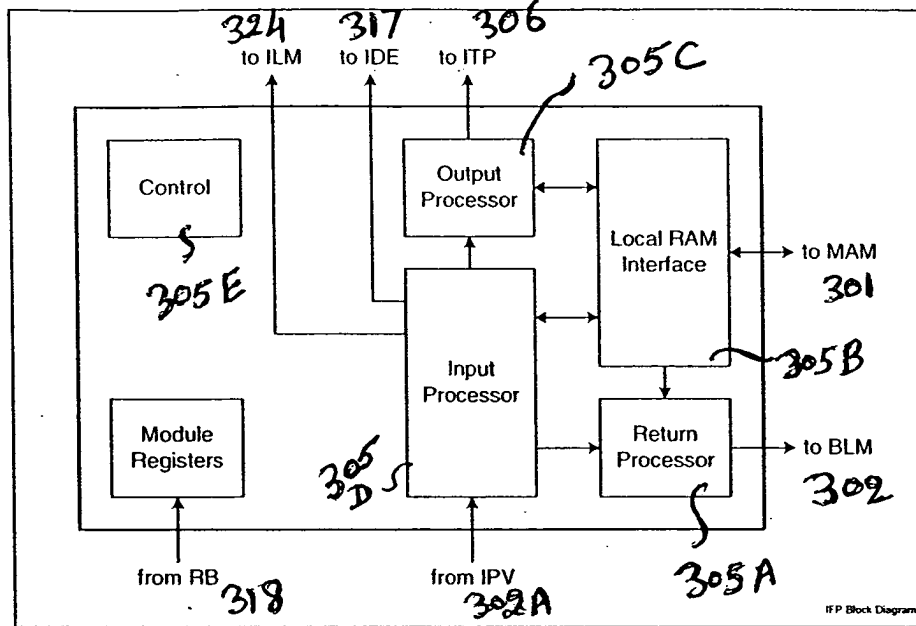


Figure 3L

305



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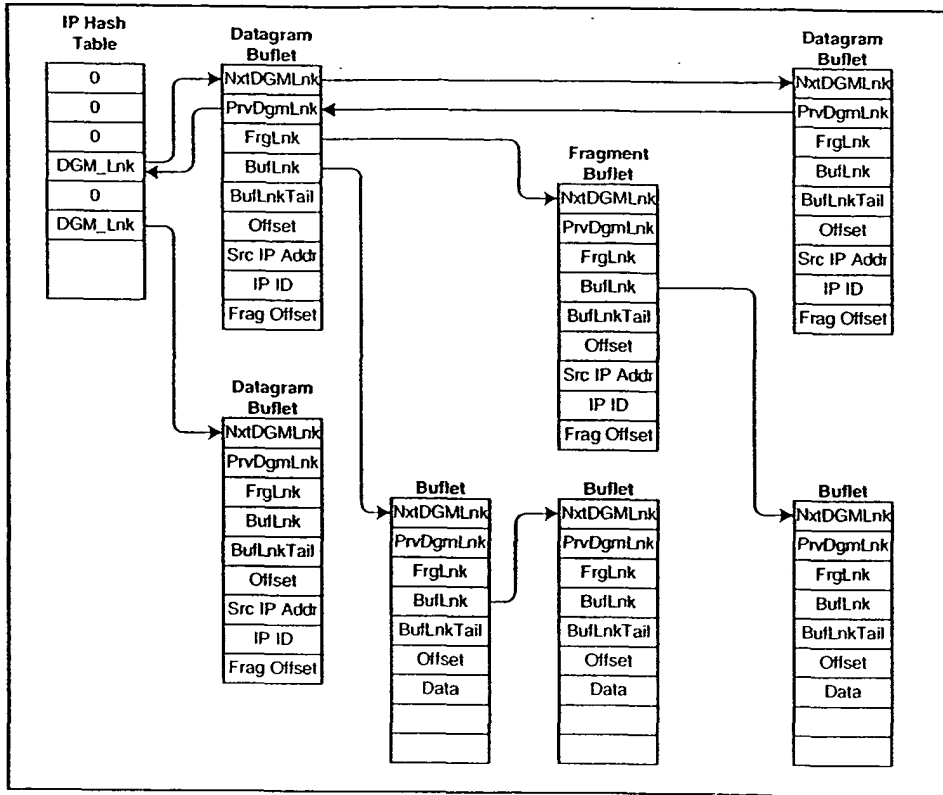


Figure 3L1:

34 & 51

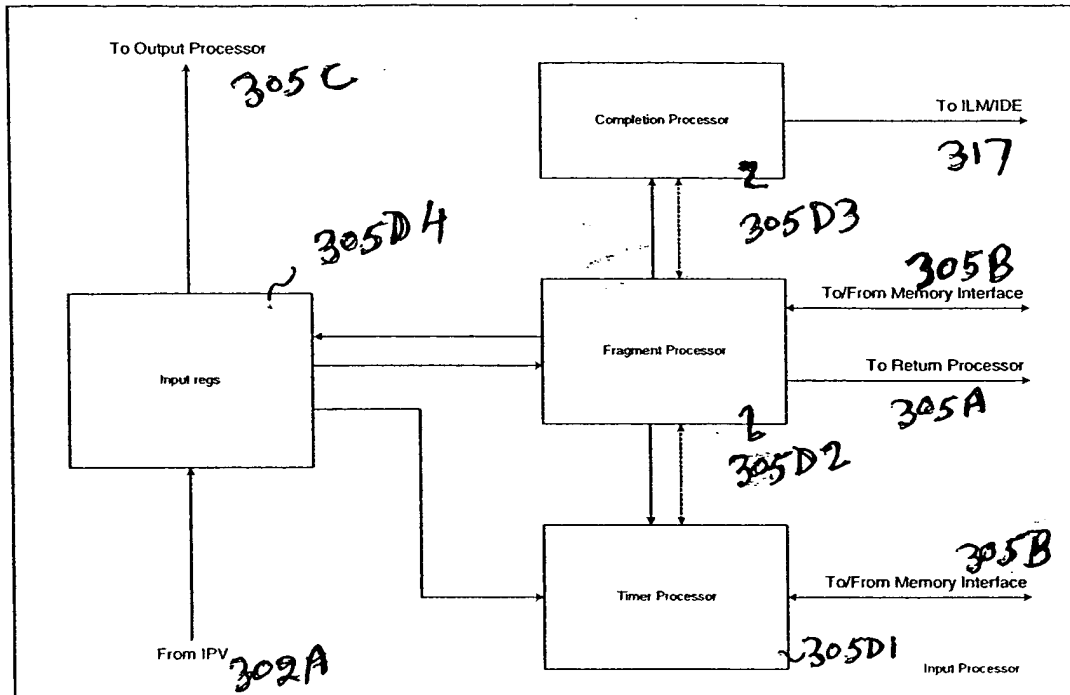


Figure 3L2

305D

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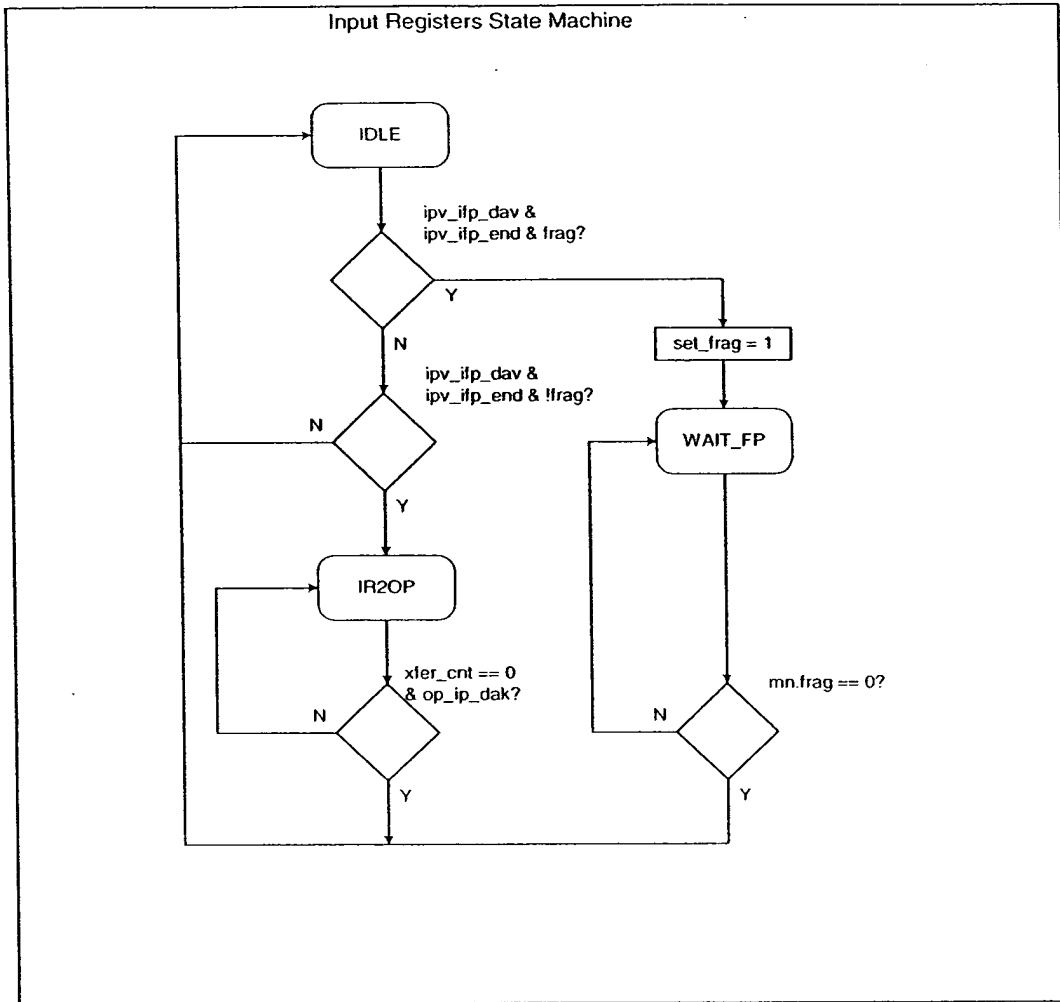


Figure 3L3

36 of 51

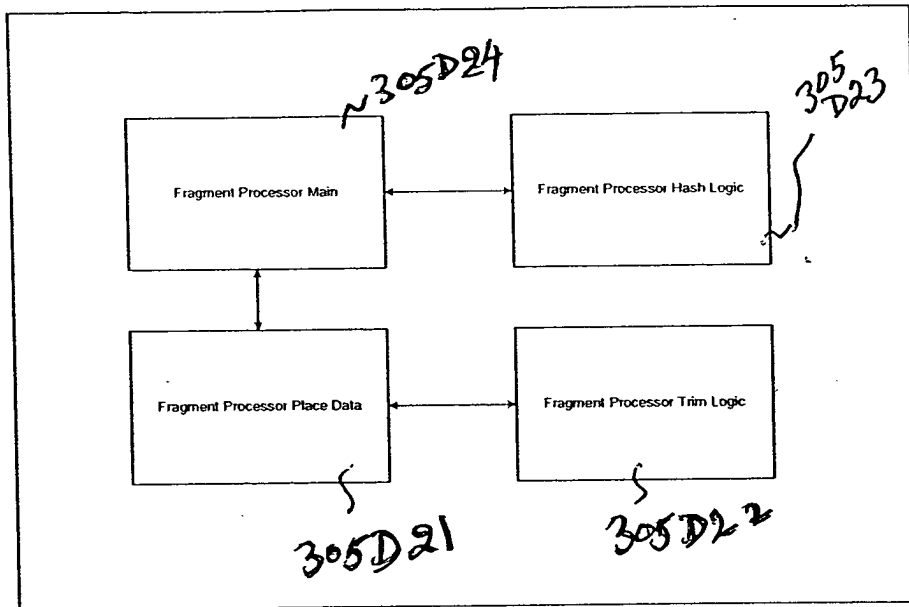


Figure 3L4

$\sim$   
 $305D2$

3785

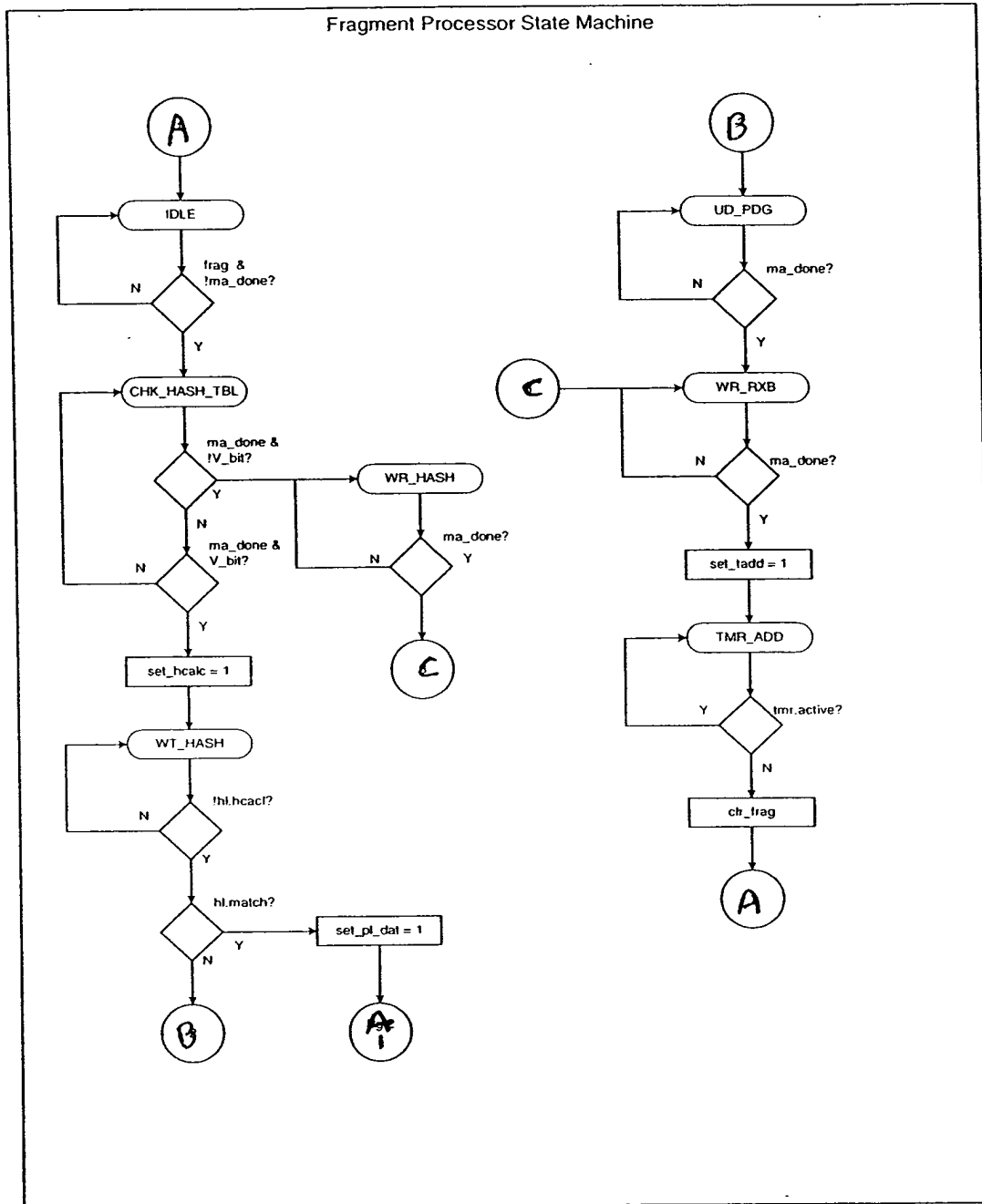


Figure 3L5A I

38 957

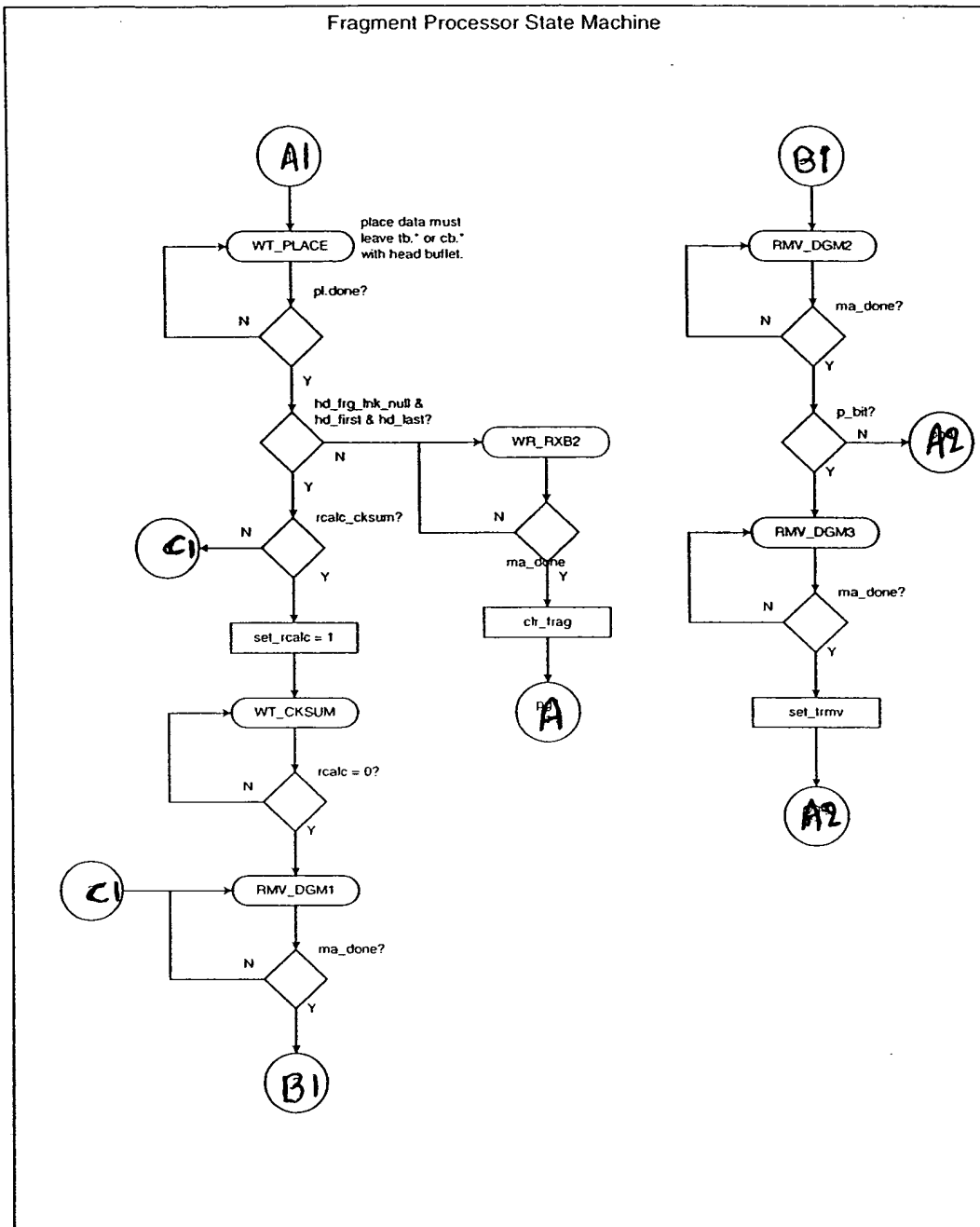


Figure 3L5B F

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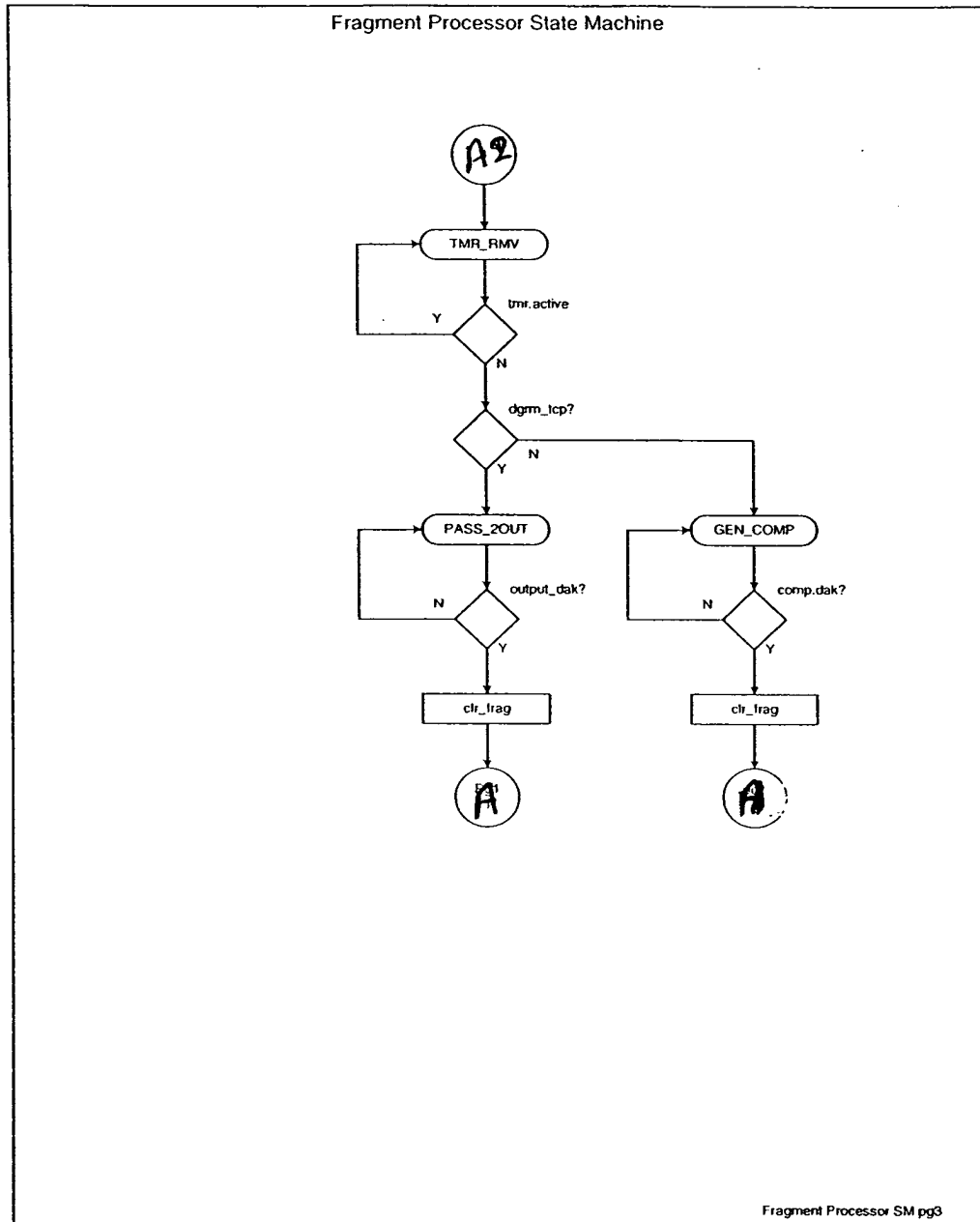


Figure 3L5C

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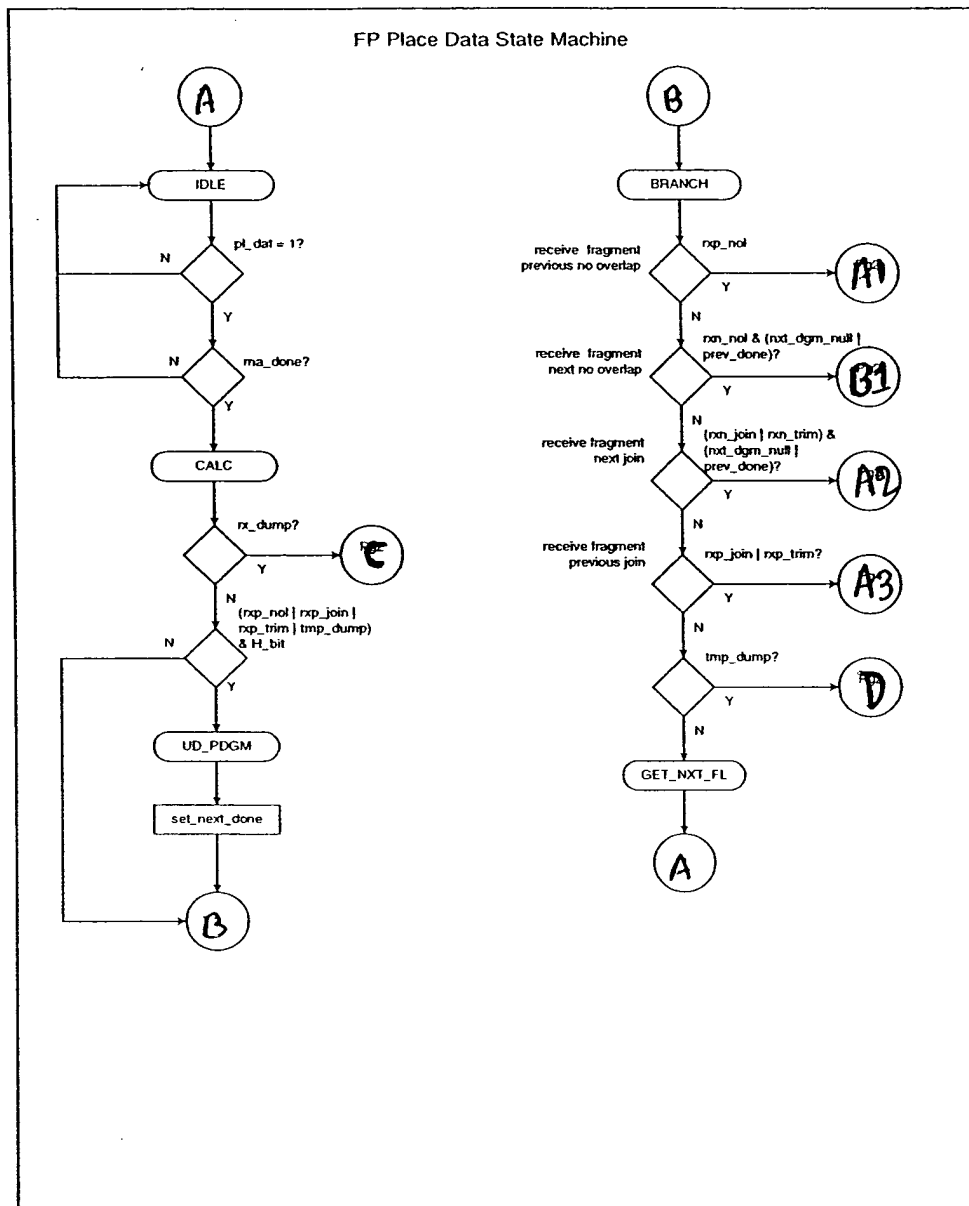


Figure 3L6A



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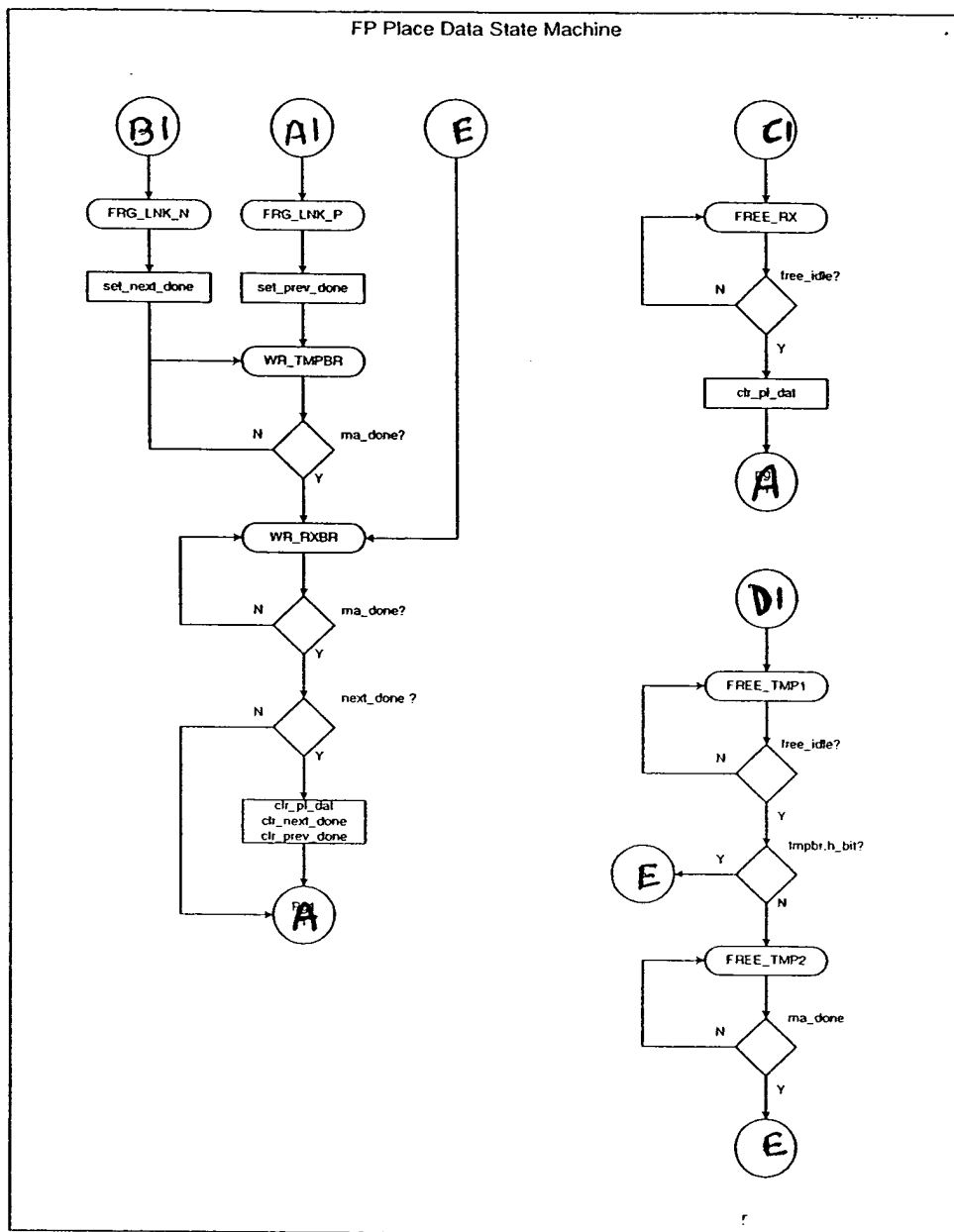


Figure 3L6 B

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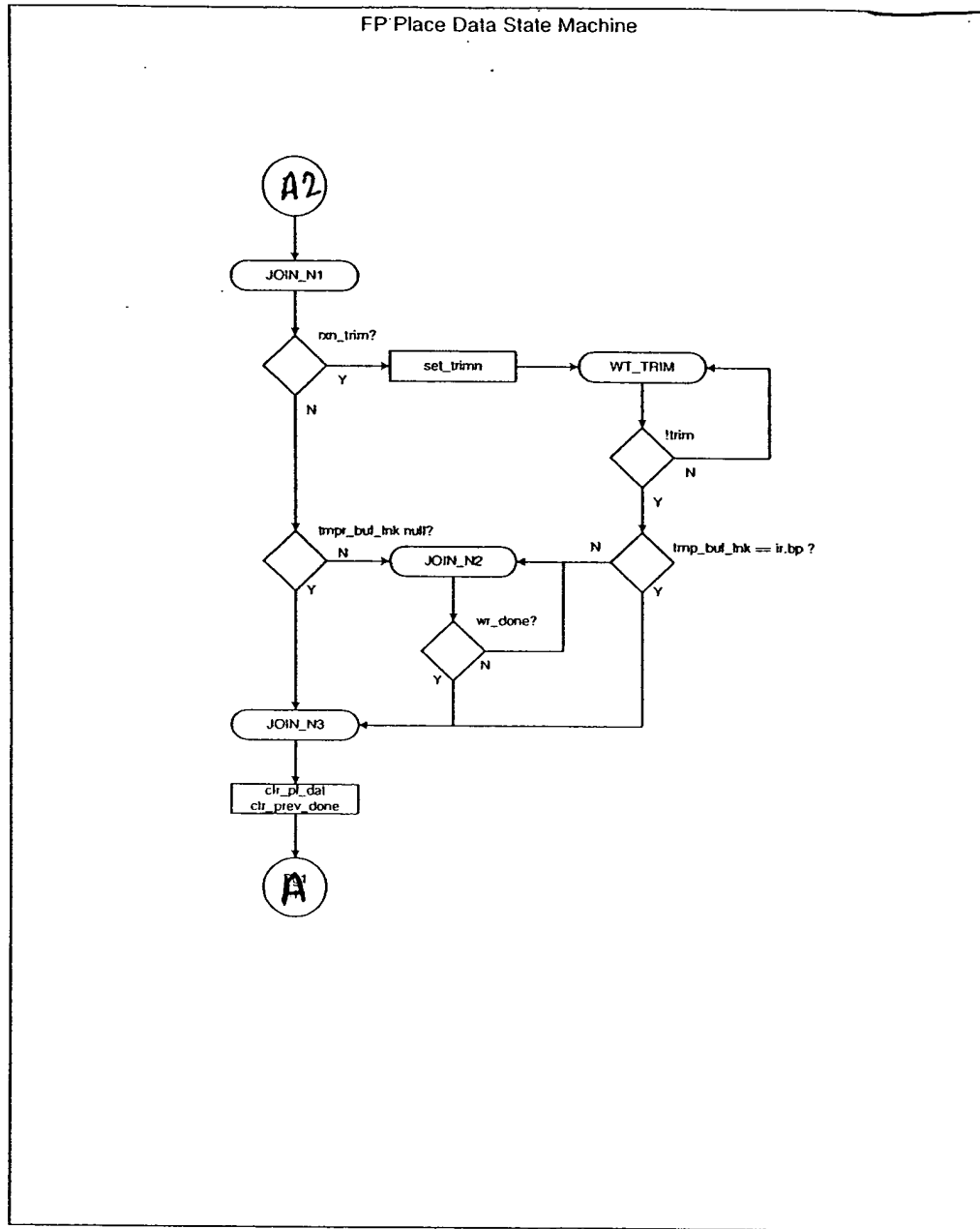


Figure 3L6C

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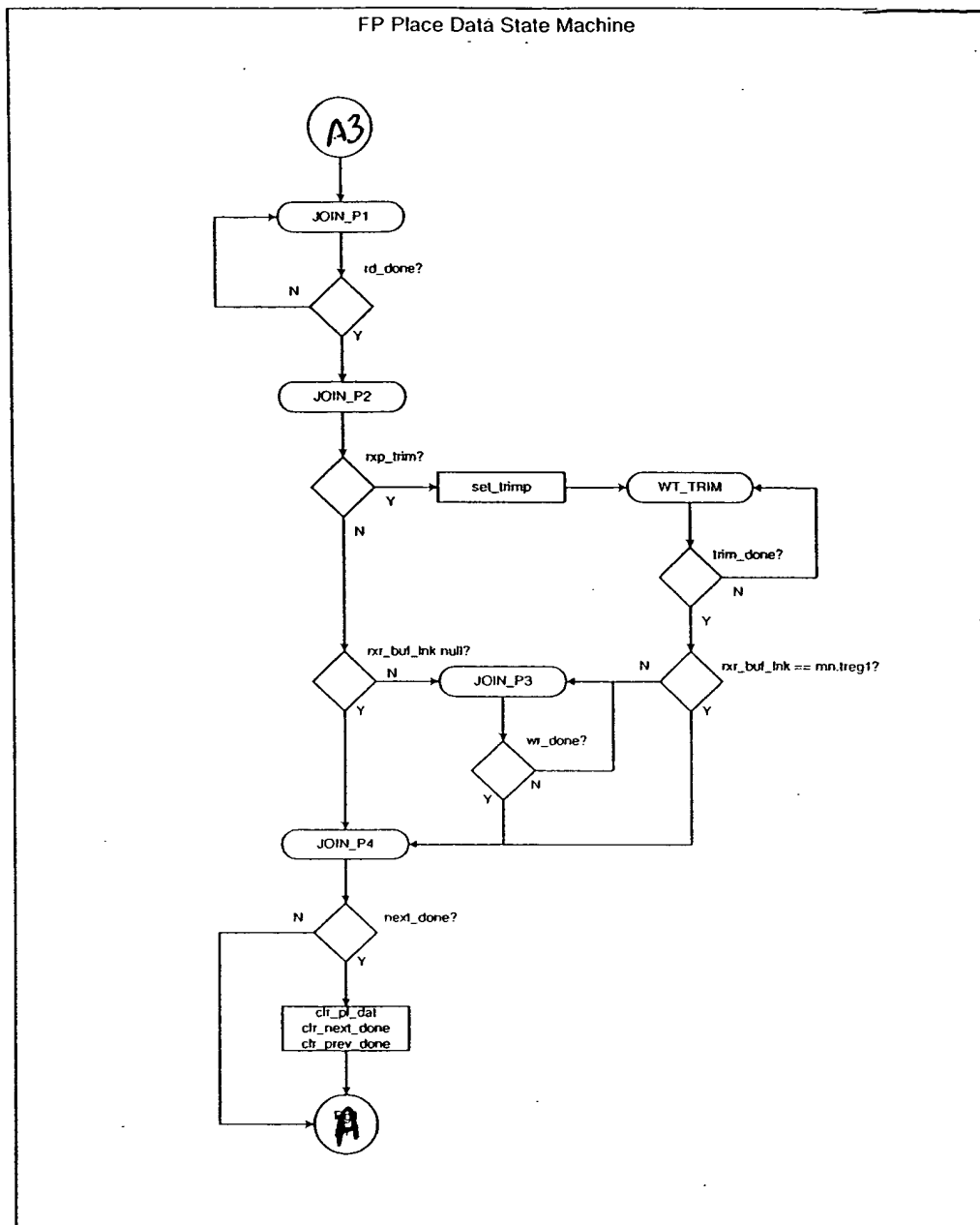


Figure 3L6D

44 9 57

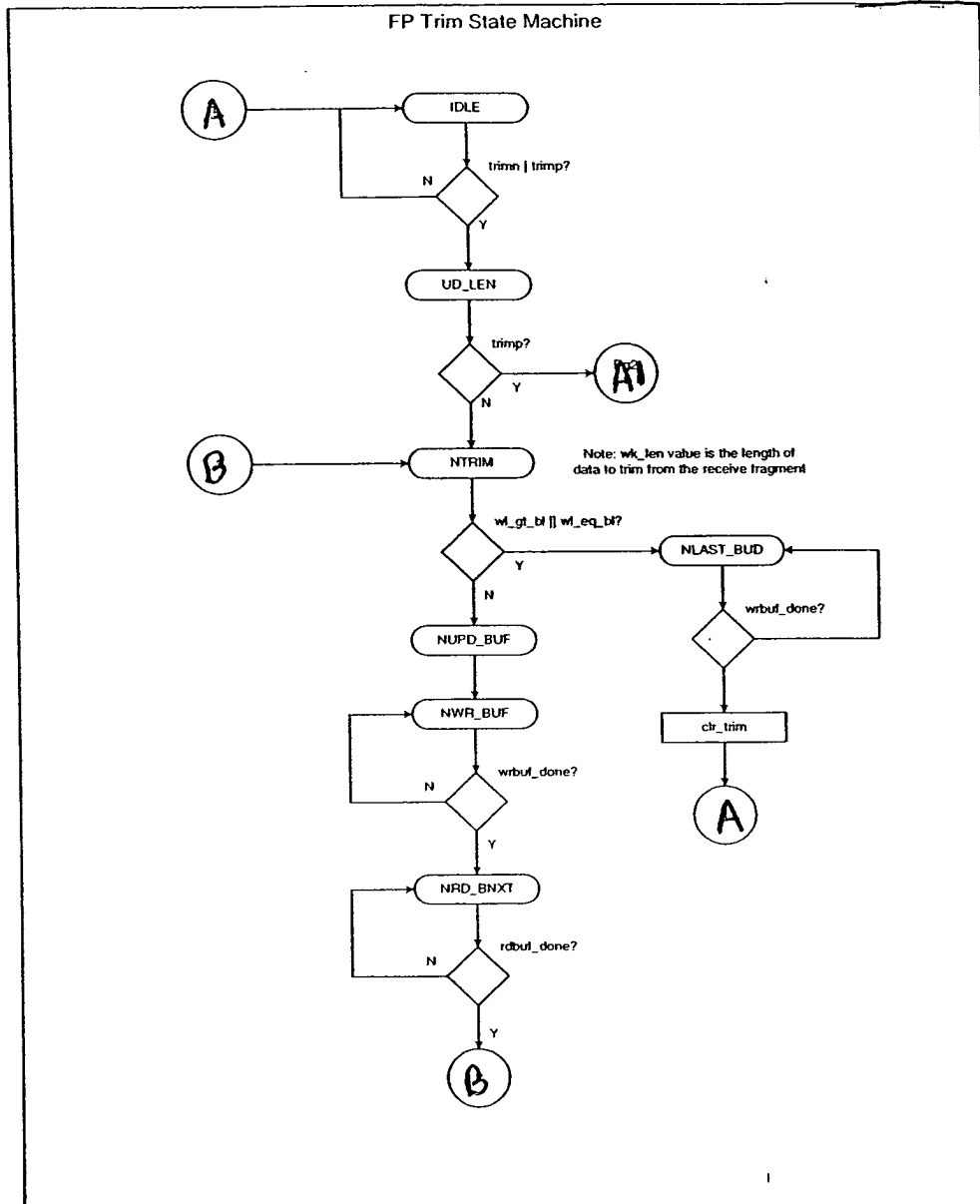


Figure 3L7A

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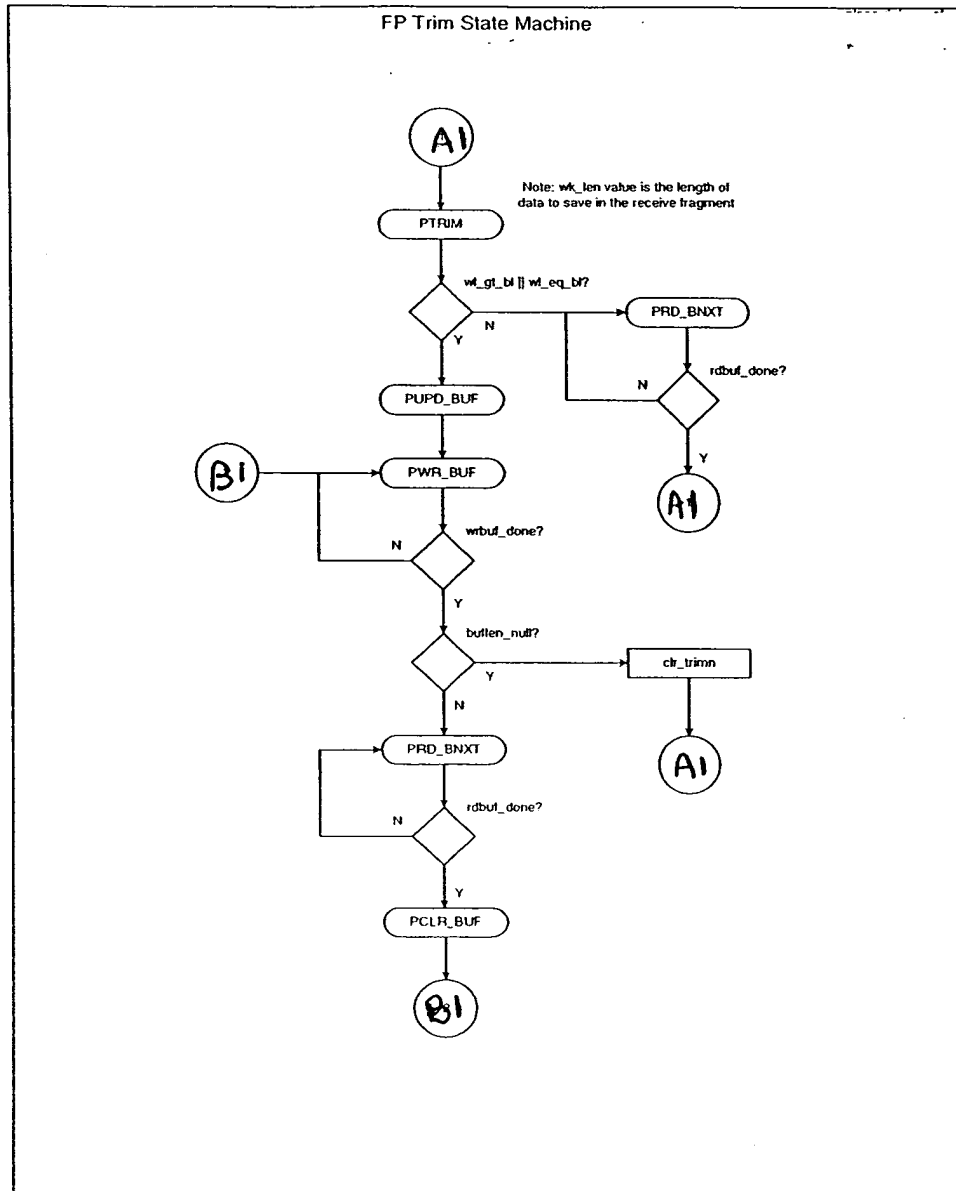


Figure 3L7B:

46 of 57

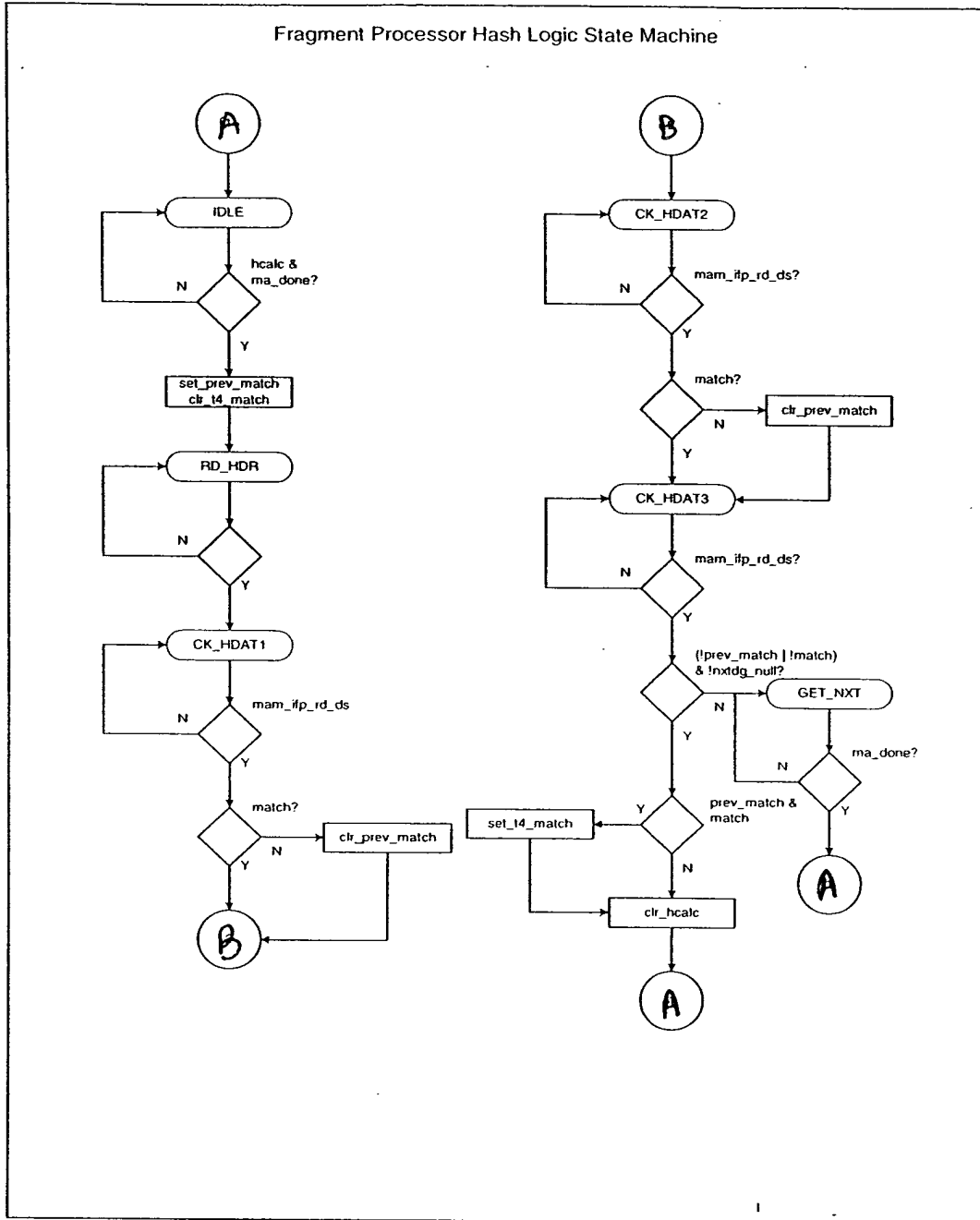


Figure 3L8 I

47 851

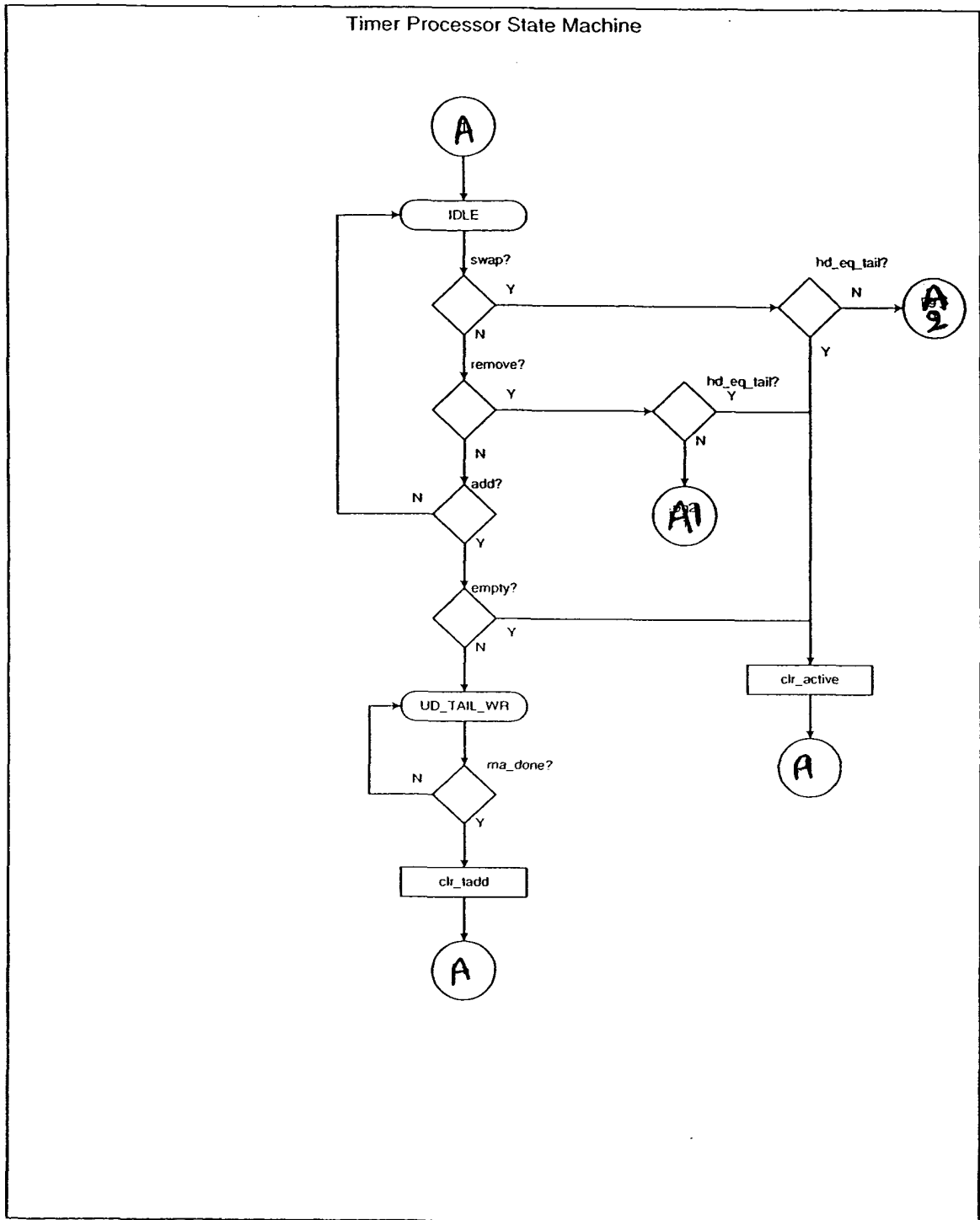


Figure 3L9A

48 of 51

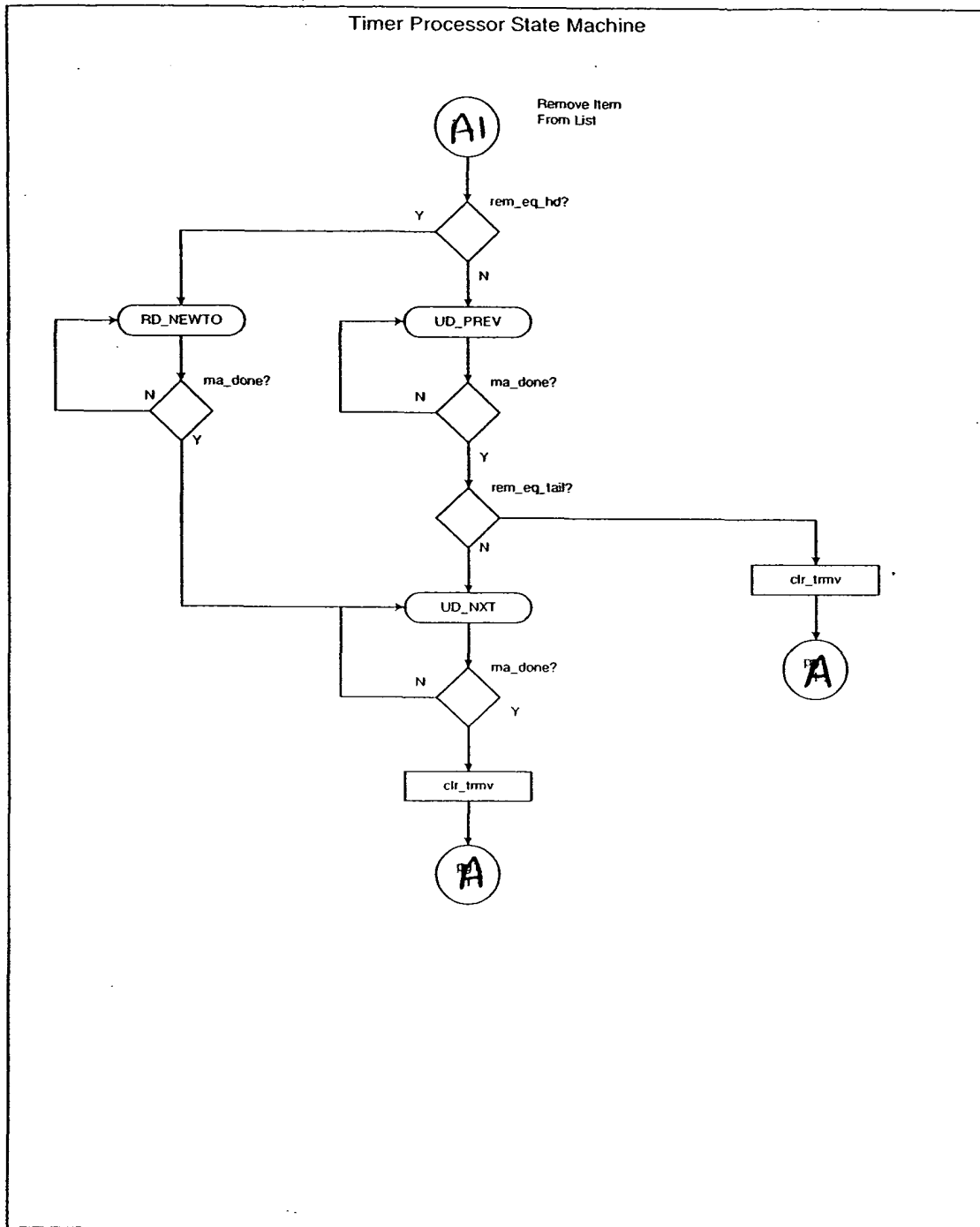


Figure 3L9B:



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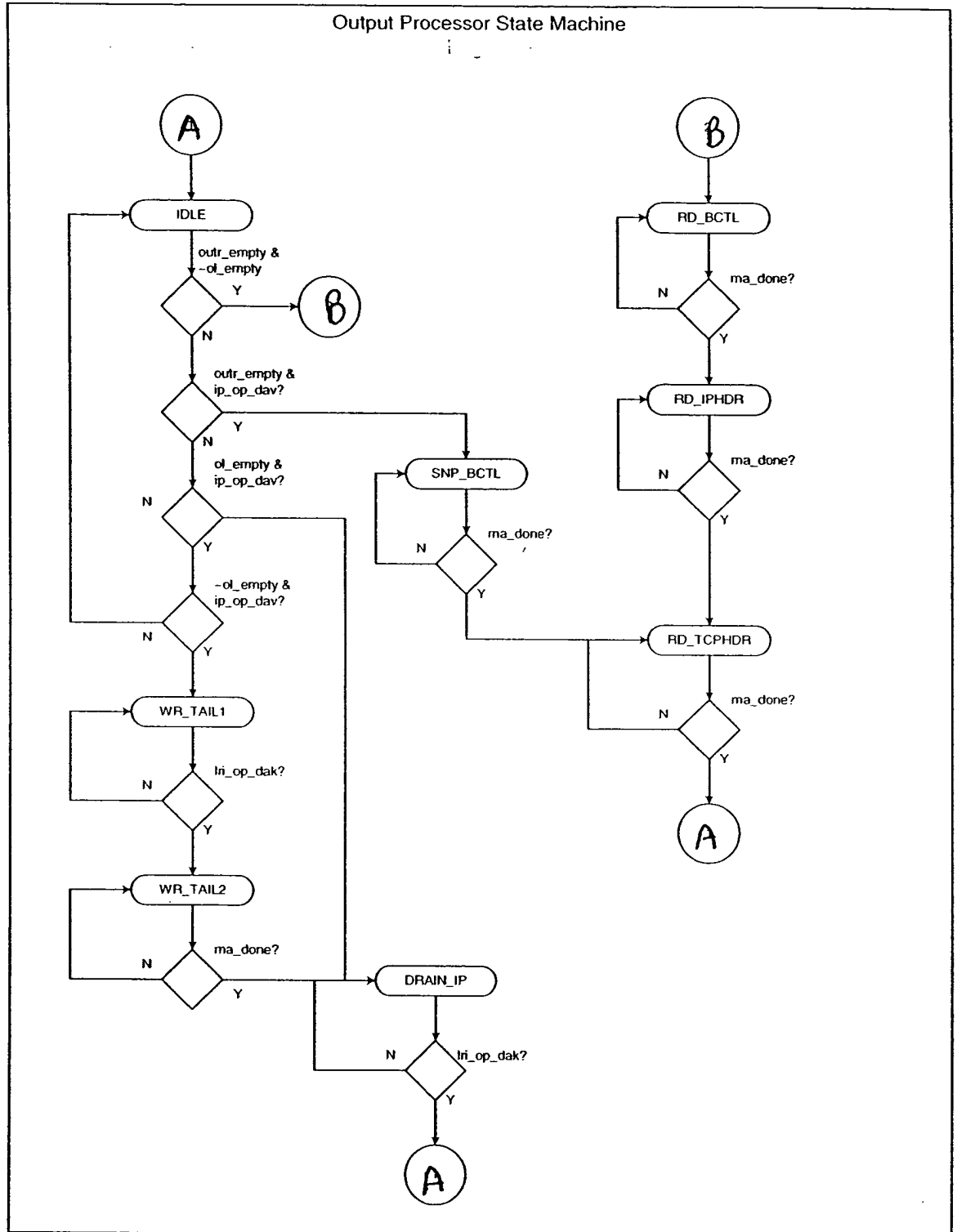


Figure 3L10 -

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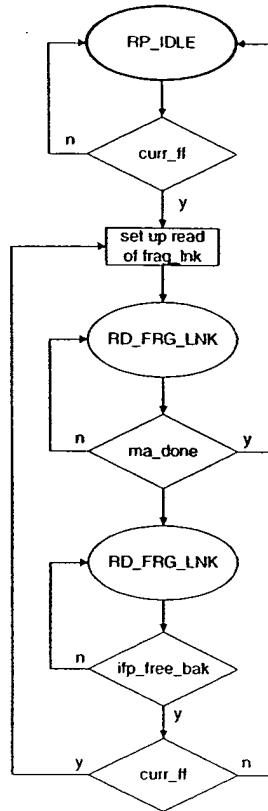


Figure 3L11 - Return Processor State Machine

57 & 51

404

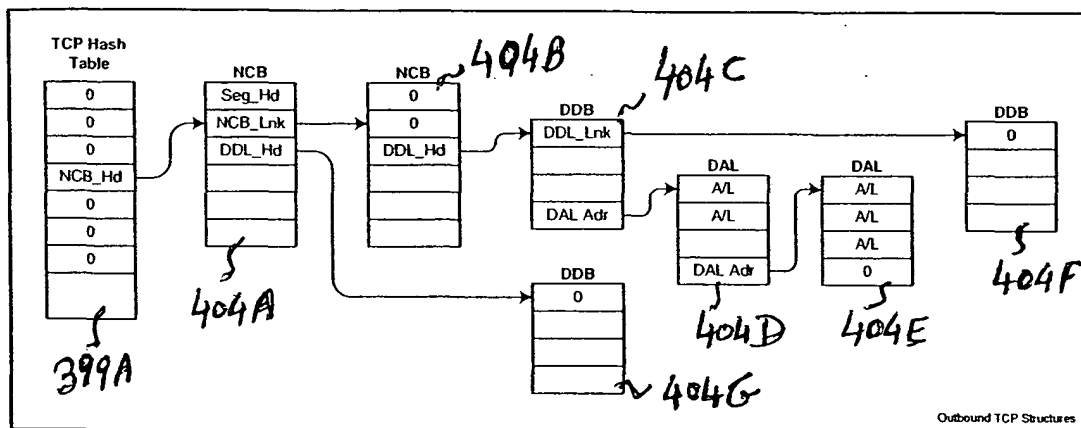


Figure 4A

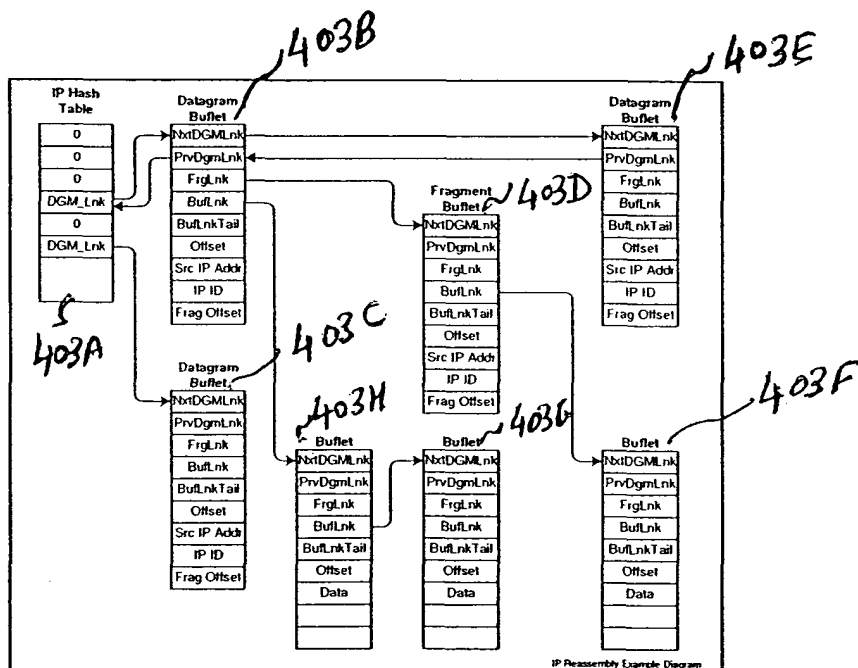


Figure 4B

403